

KIC 009520700

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
009520700-01	OBS	7183.01	2.136857	133.533916	268894.1	7.500	7223.8	-1.0	0.99	5753	23.24	949.66
009520700-02	OBS	No	4.273755	134.054972	12560.3	12.000	879.8	-1.0	0.99	5753	10.98	376.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009520700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
009520700-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—SAME_NTL_PERIOD—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

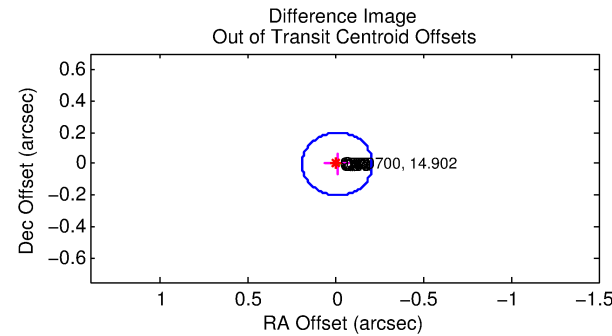
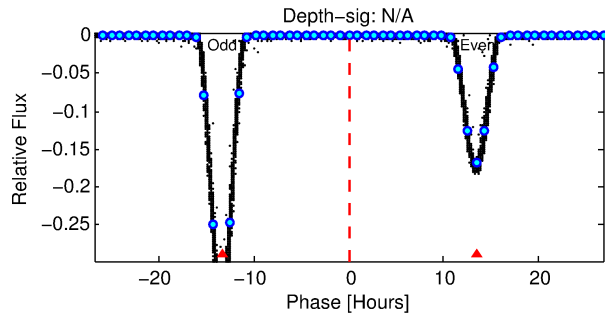
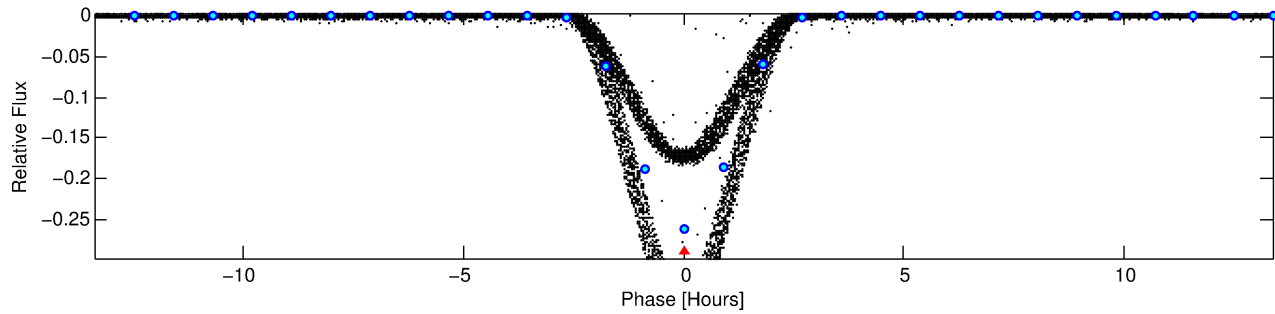
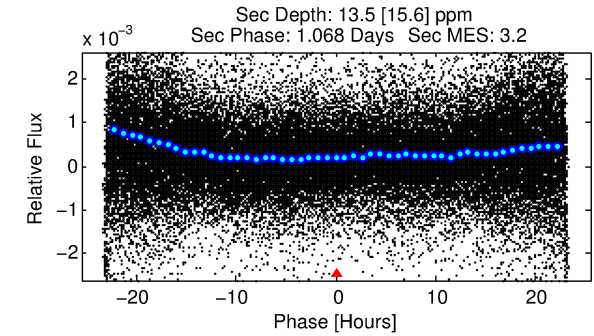
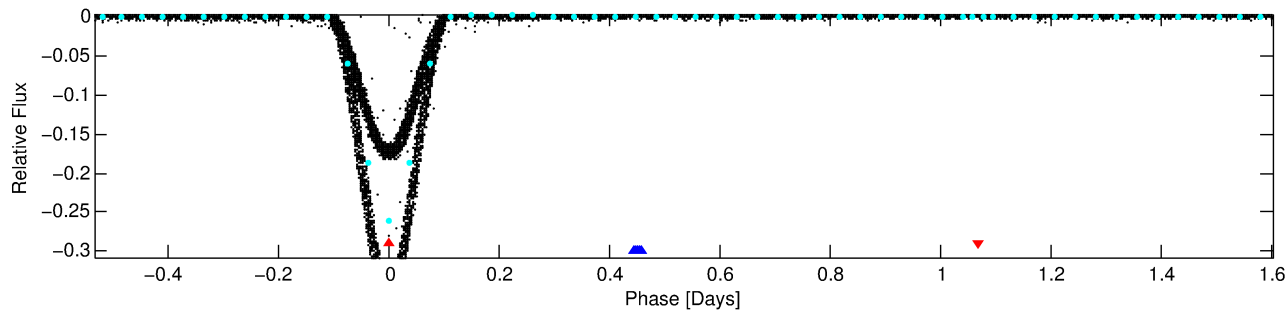
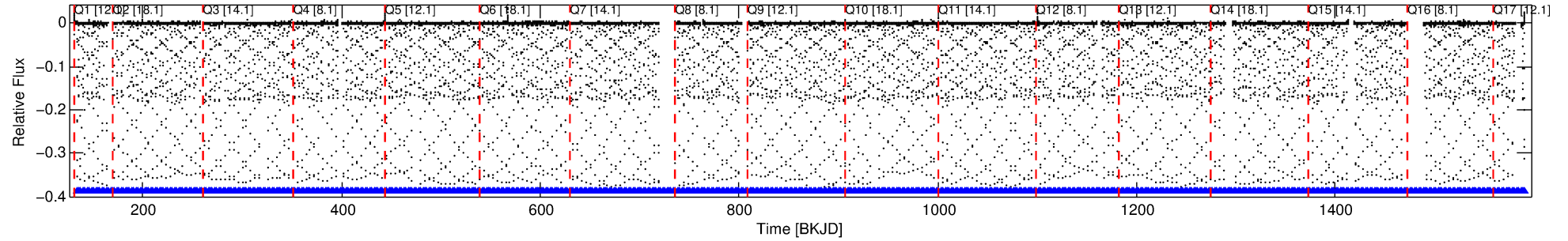
Ephemeris Match Information For 009520700-01

No Significant Match Found

DV One-Page Summary

KIC: 9520700 Candidate: 1 of 2 Period: 2.137 d
KOI: K07183 Corr: No Ephemeris Match

Kp: 14.90 R*: 0.99 Rs Teff: 5753.0 K Logg: 4.42 Fe/H: -0.060



TPS TCE Results:

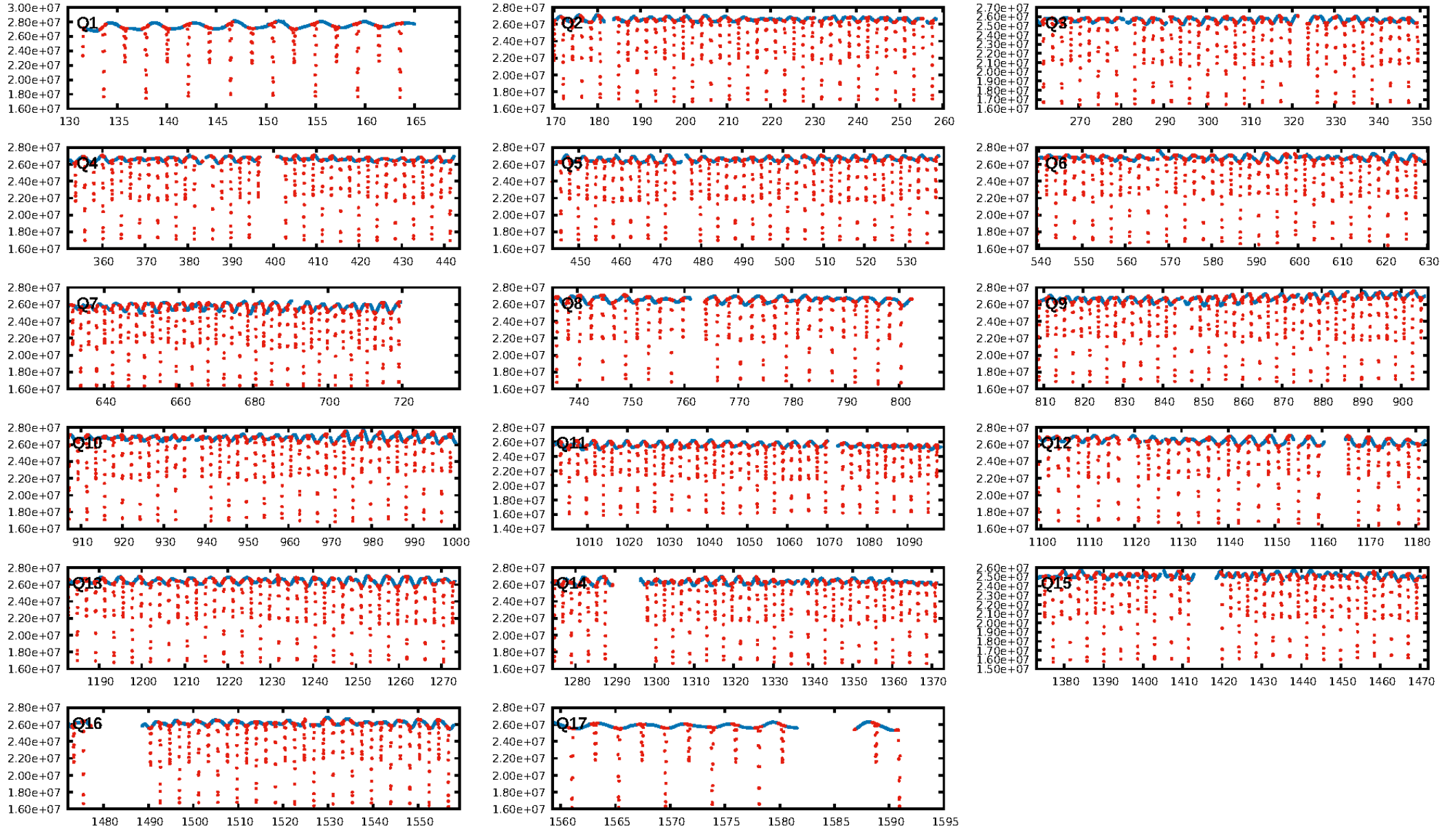
Period = 2.13686 d
Epoch = 133.5339 BKJD

DV fit results are unavailable

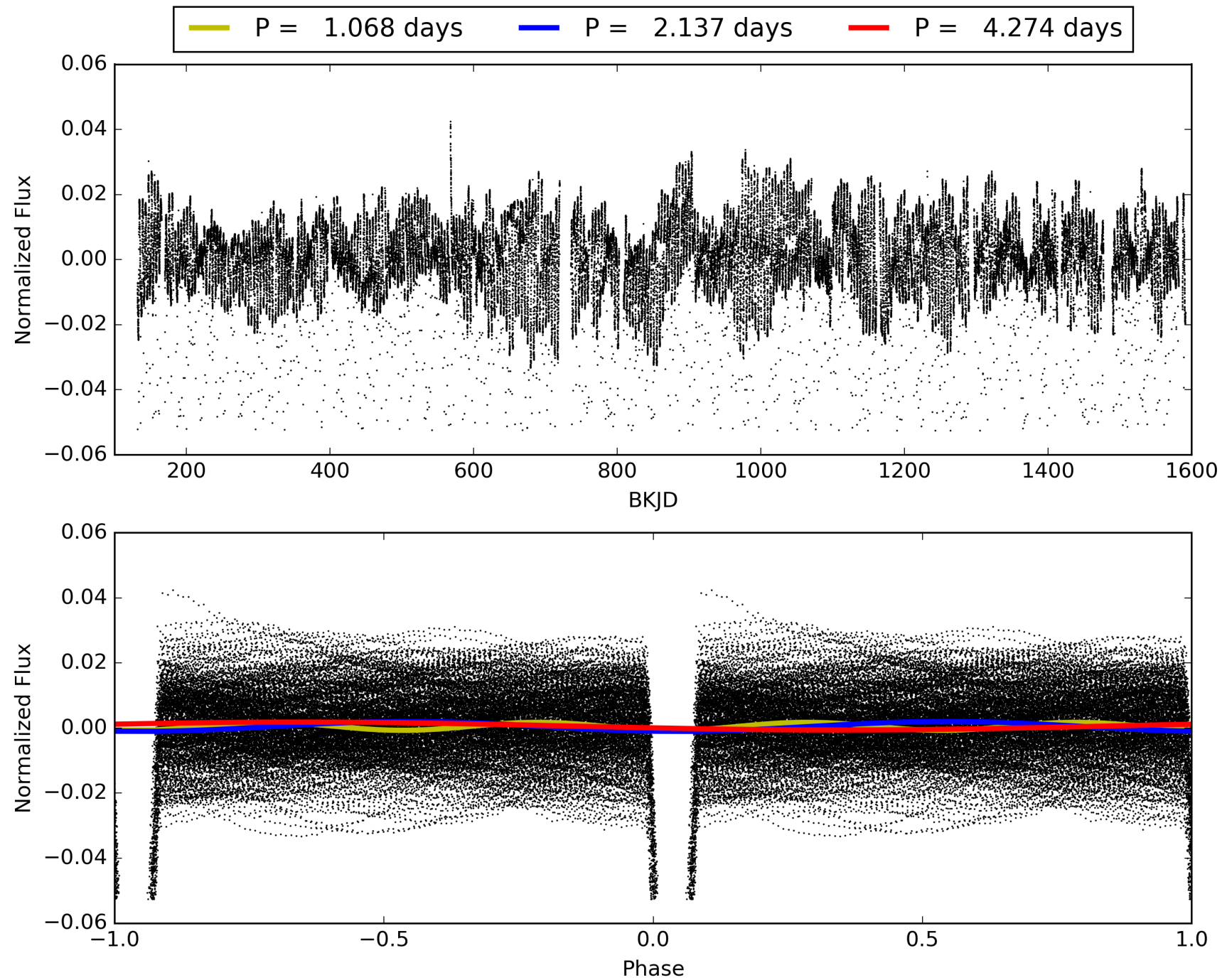
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [3.62σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [604/604]
GhostDiagnostic-chr: 1.276
Centroid-sig: N/A
Centroid-so: 0.198 arcsec [447.33σ]
OotOffset-rm: 0.009 arcsec [0.13σ]
KicOffset-rm: 0.042 arcsec [0.63σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009520700-01, PDC Light Curves

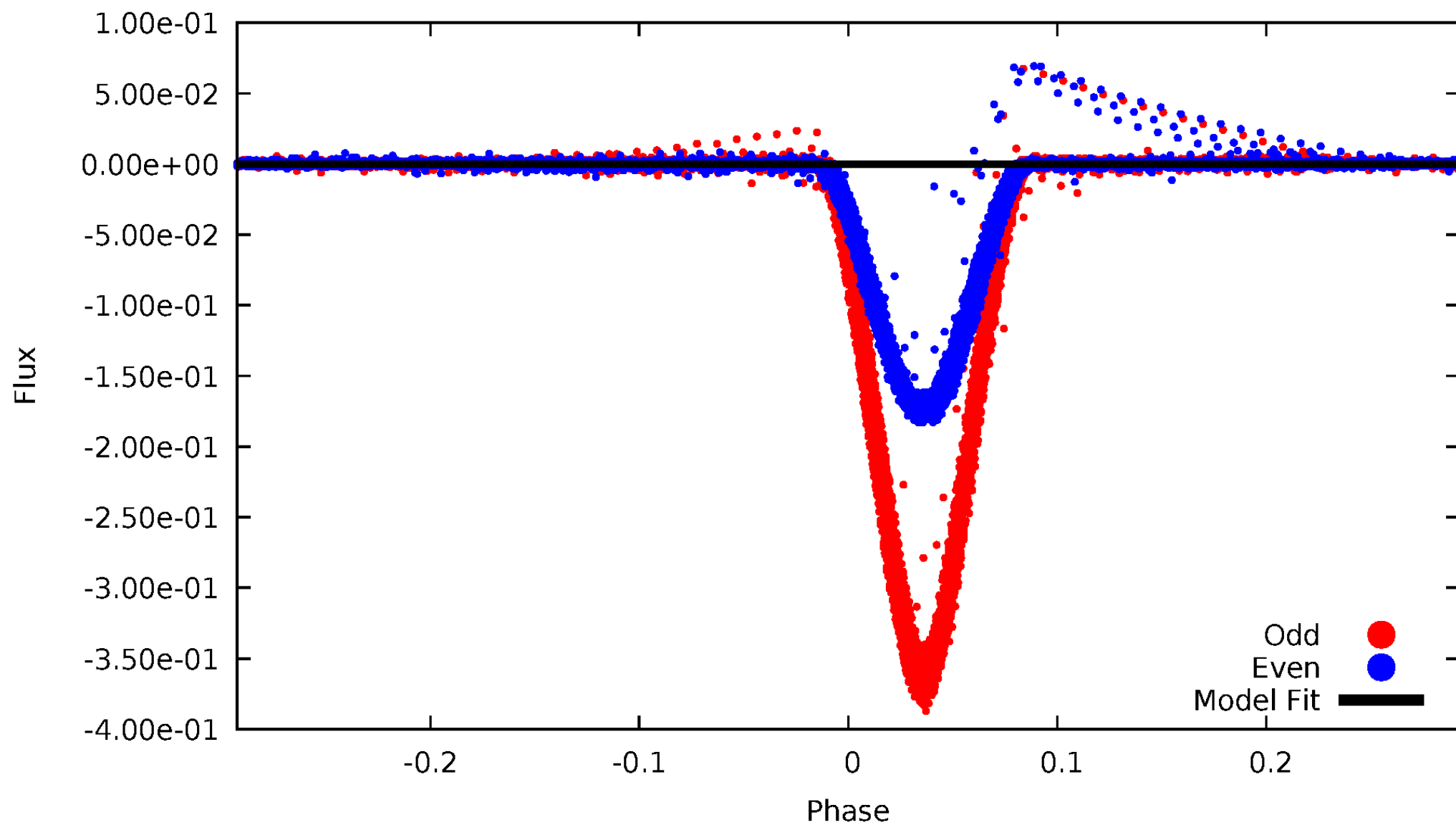


TCE 009520700-01



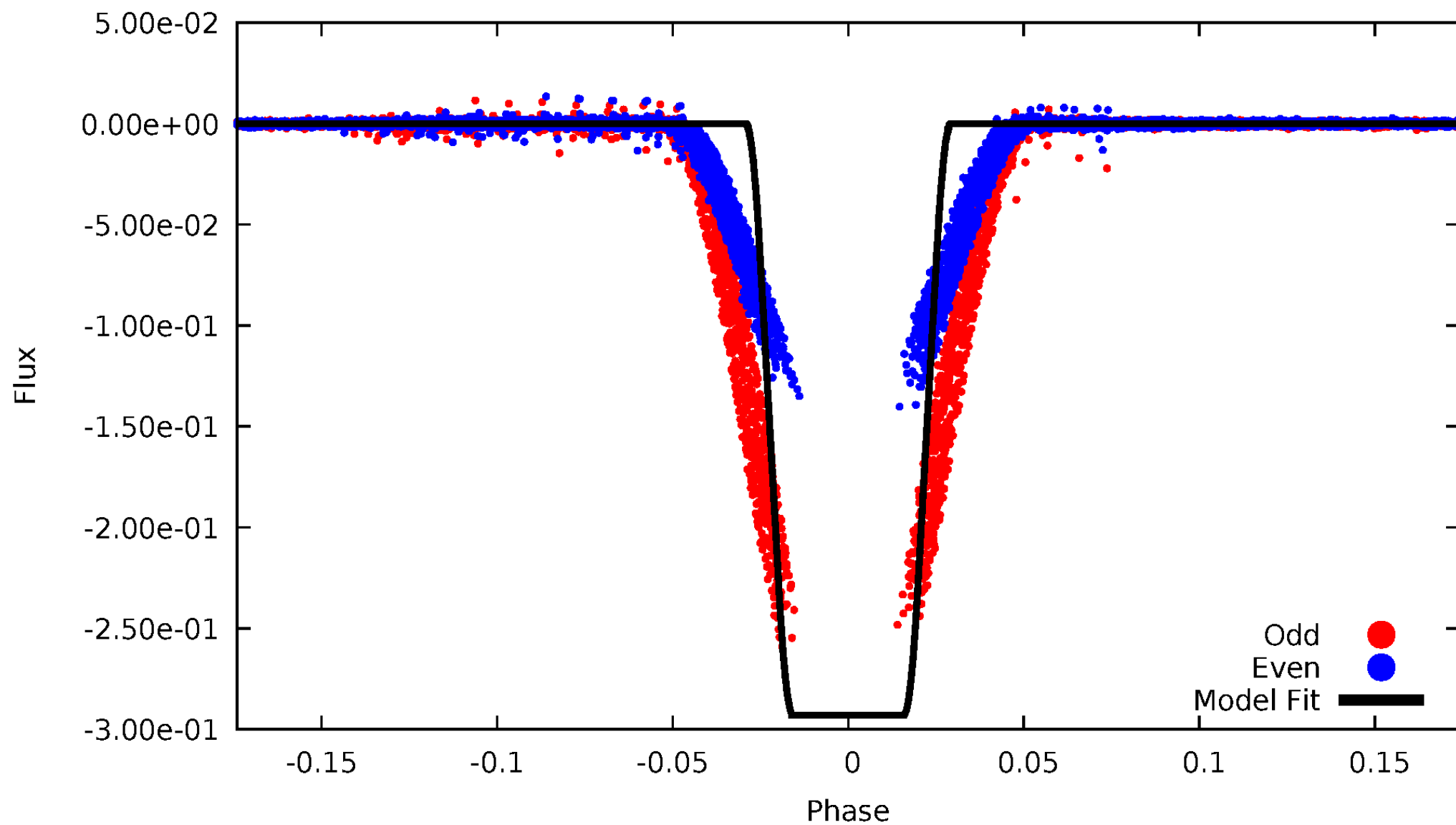
DV Odd/Even

TCE 009520700-01



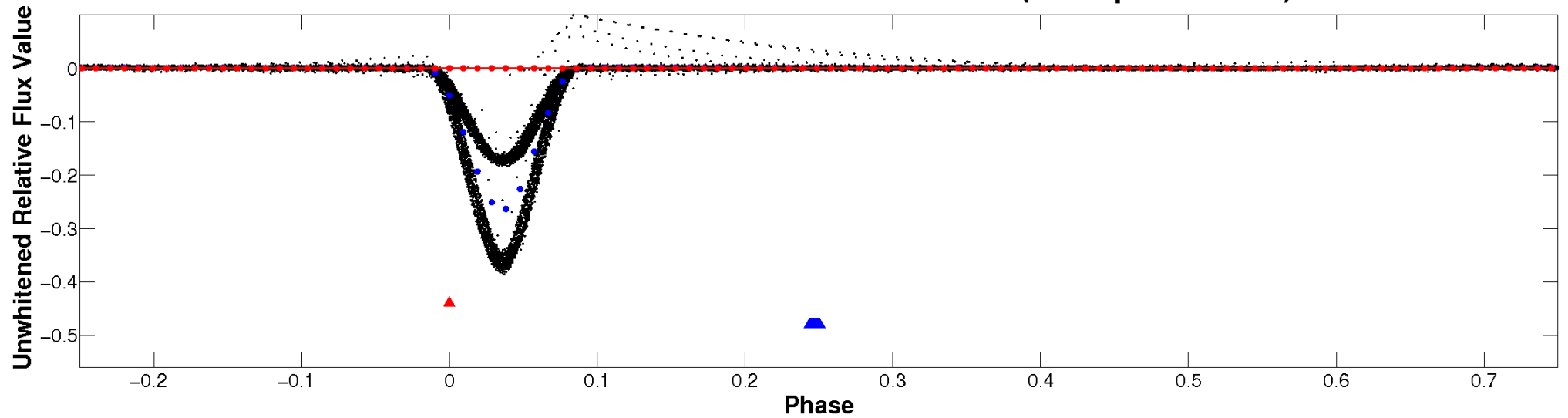
ALT Odd/Even

TCE 009520700-01



Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

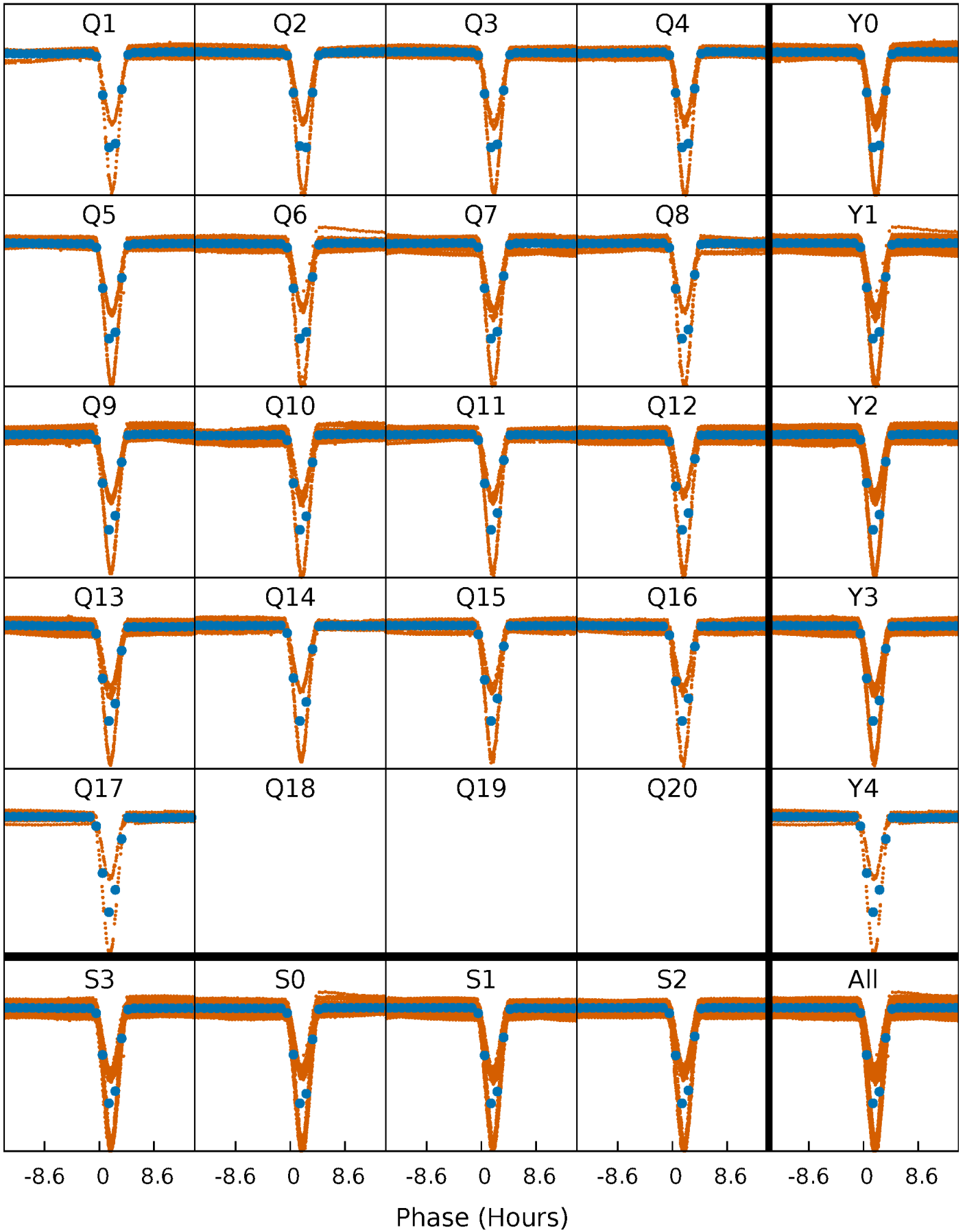


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



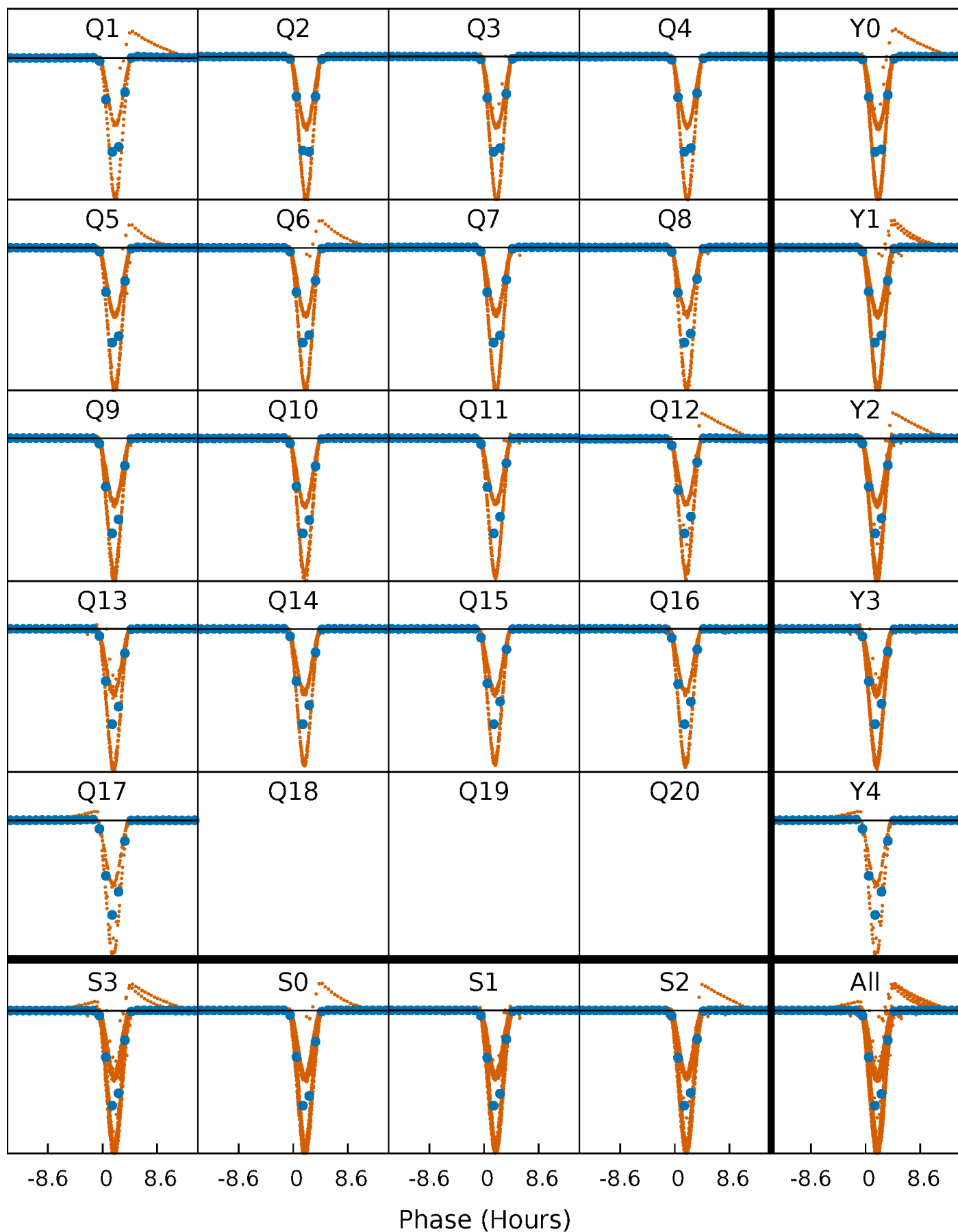
PDC Quarter-Phased Transit Curves

TCE 009520700-01 P= 2.136857 Days $T_0=133.533916$ (BKJD)



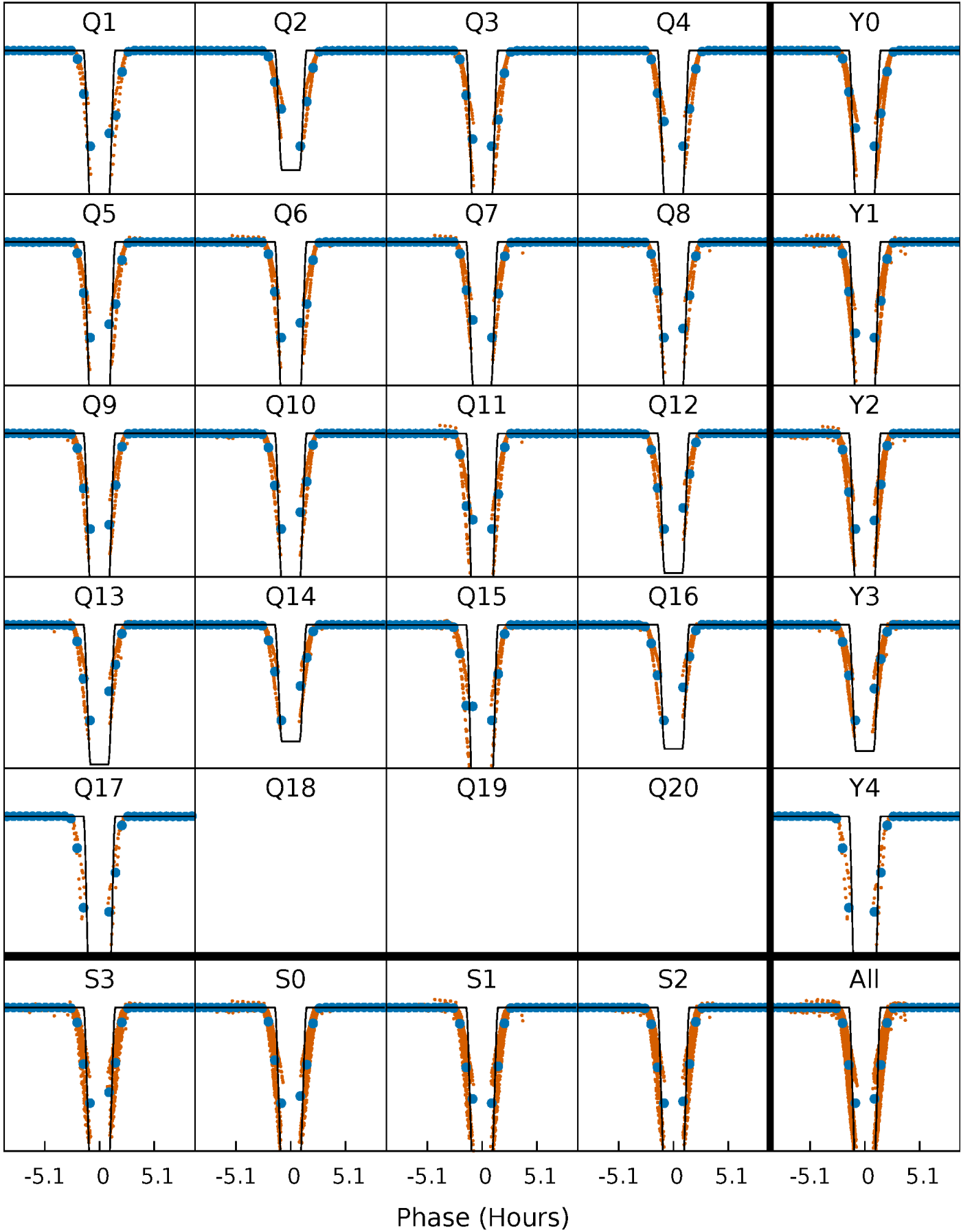
DV Quarter-Phased Transit Curves

TCE 009520700-01 P= 2.136857 Days $T_0=133.533916$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

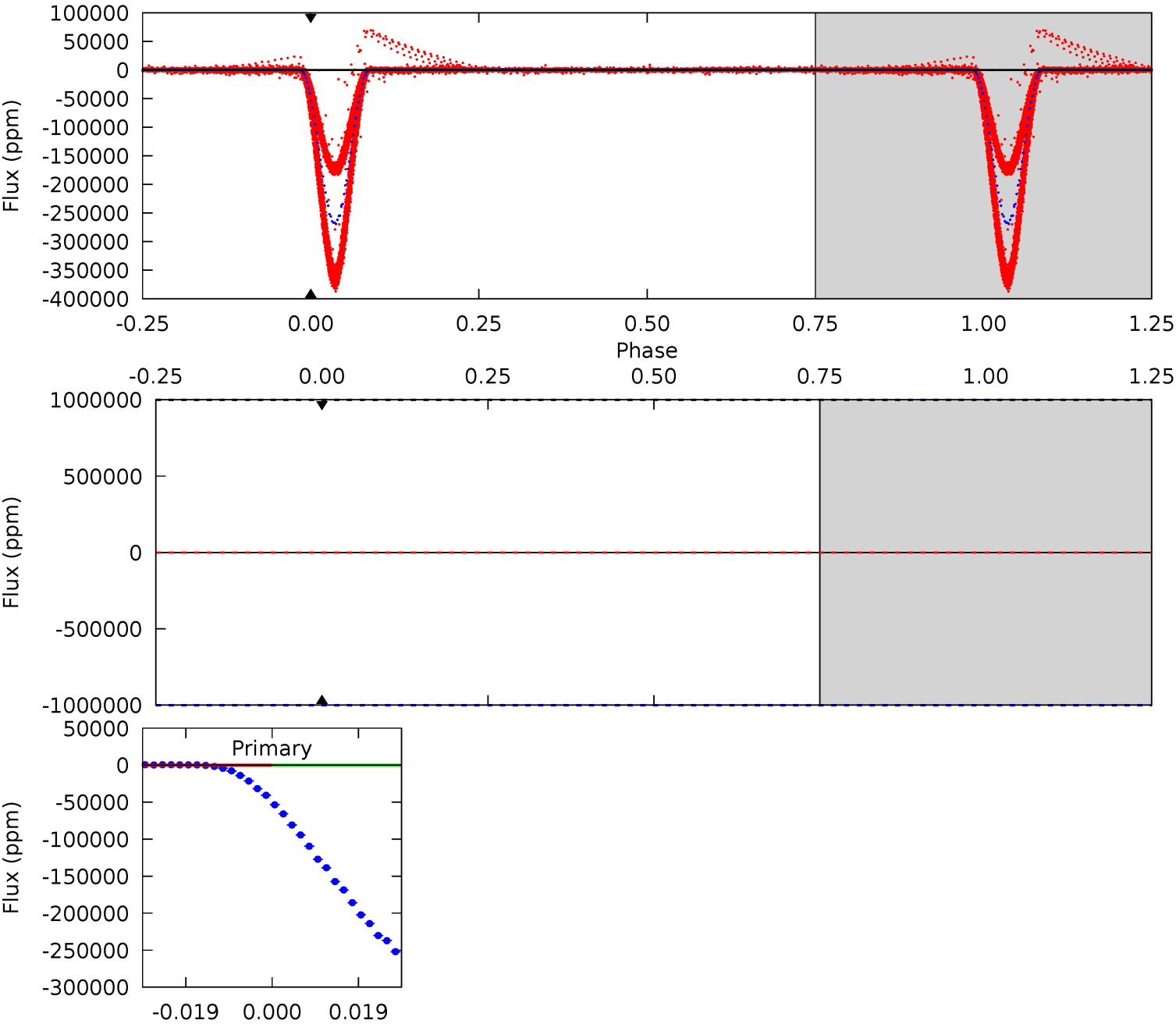
TCE 009520700-01 P= 2.136857 Days $T_0=133.610811$ (BKJD)



DV Model-Shift Uniqueness Test

009520700-01, P = 2.136857 Days, E = 131.397059 Days

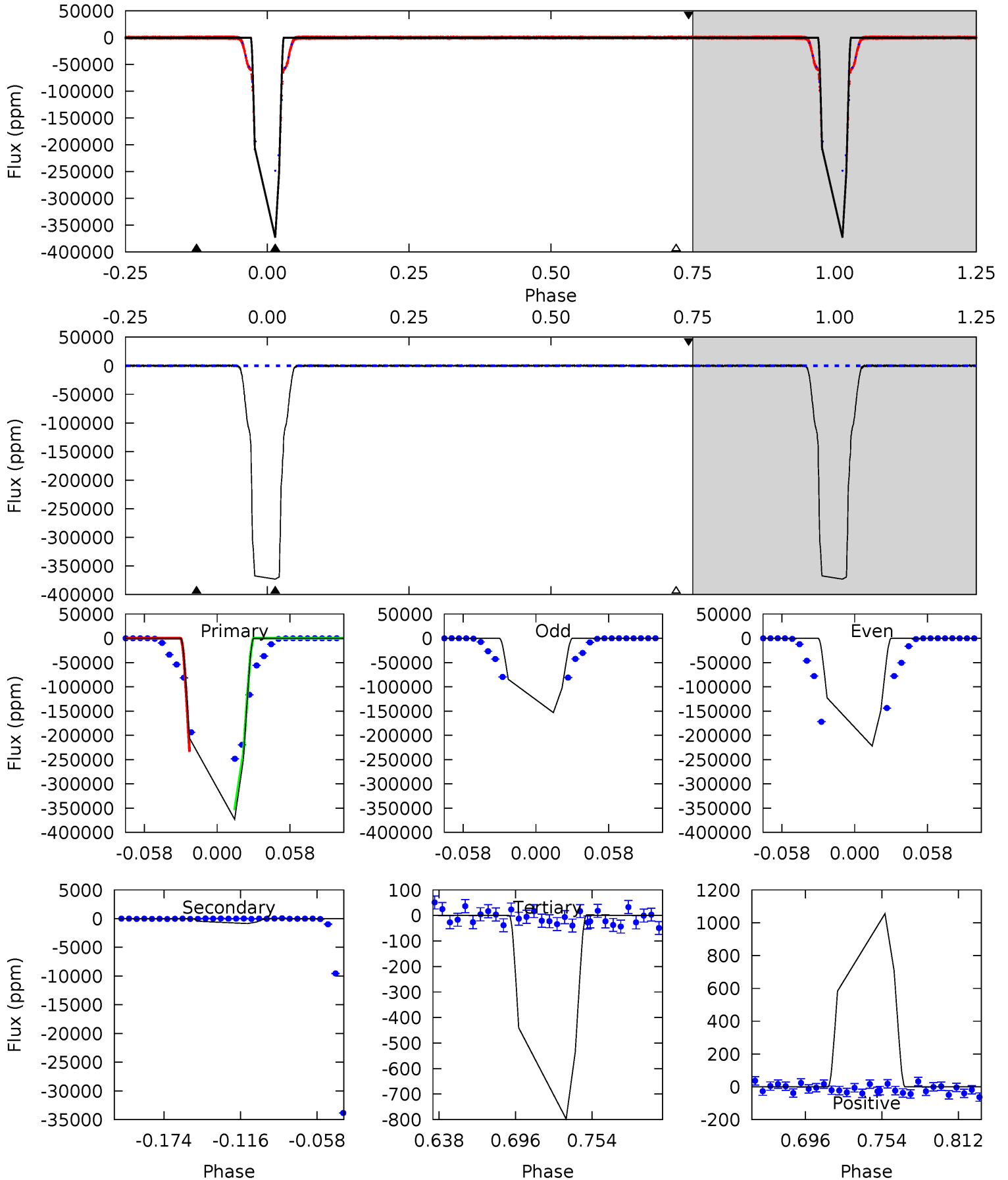
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009520700-01, P = 2.136857 Days, E = 131.473954 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4008	9.29	8.57	11.3	4.68	1.90	5.77	4000	3997	0.72	-2.05	114.9	2.54	0.00	0



Stellar Parameters For KIC 009520700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5753^{+156}_{-156}	$4.420^{+0.101}_{-0.188}$	$-0.060^{+0.300}_{-0.300}$	$0.989^{+0.274}_{-0.147}$	$0.940^{+0.125}_{-0.091}$	$1.368^{+0.603}_{-0.668}$
	+3%/-3%	+2%/-4%	+500%/-500%	+28%/-15%	+13%/-10%	+44%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009520700-01 / KOI 7183.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$24.01^{+10.83}_{-10.41}$	2000^{+134}_{-104}	2735^{+4851}_{-9782}	$0.848^{+131.012}_{-102.452}$
Alt.	-865 ± 93	$60.27^{+13.91}_{-13.10}$	1998^{+133}_{-109}	-2312^{+180}_{-129}	$0.133^{+0.078}_{-0.047}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

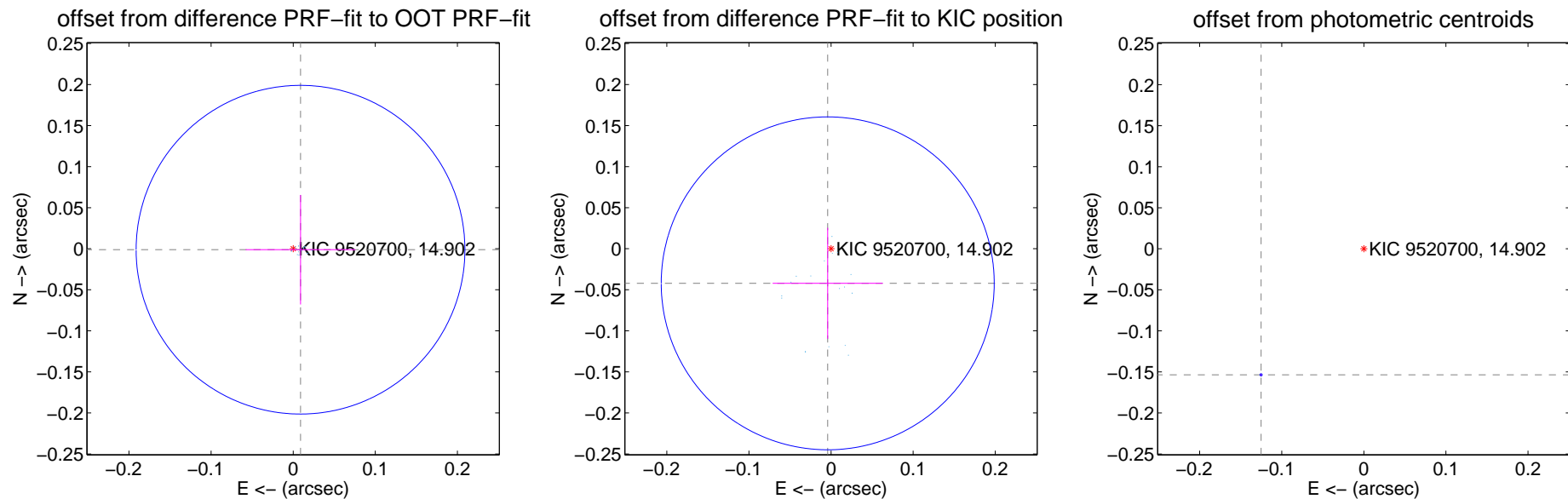
DV Centroid Data

Supplemental centroid analysis for 009520700-01. Kepler magnitude: 14.90. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

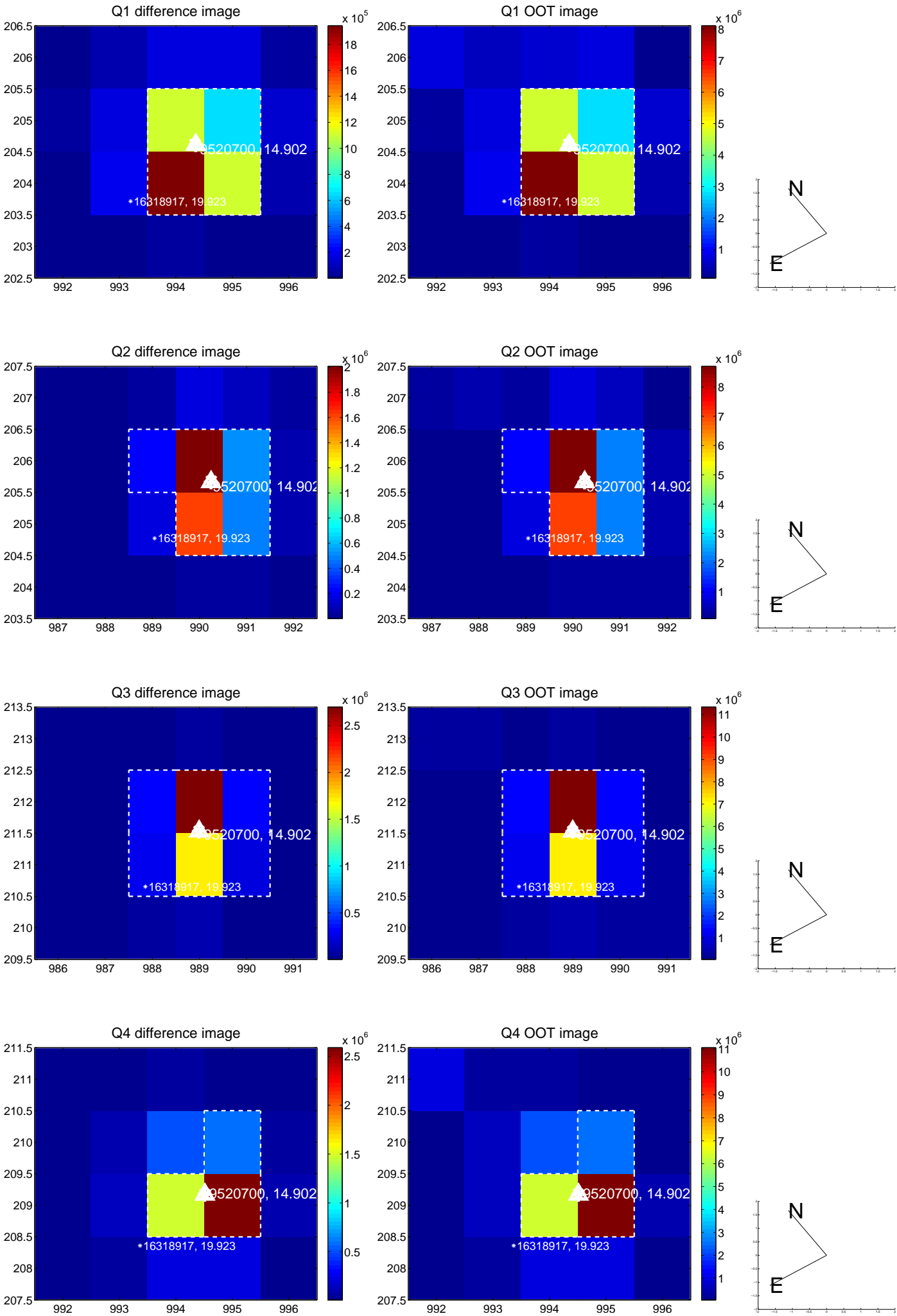
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.009 ± 0.067	0.13	-0.009 ± 0.067	-0.001 ± 0.067
PRF-fit source offset from KIC position	0.042 ± 0.068	0.63	0.004 ± 0.067	-0.042 ± 0.068
photometric centroid source offset	0.20 ± 0.00	447.33	0.13 ± 0.00	-0.15 ± 0.00

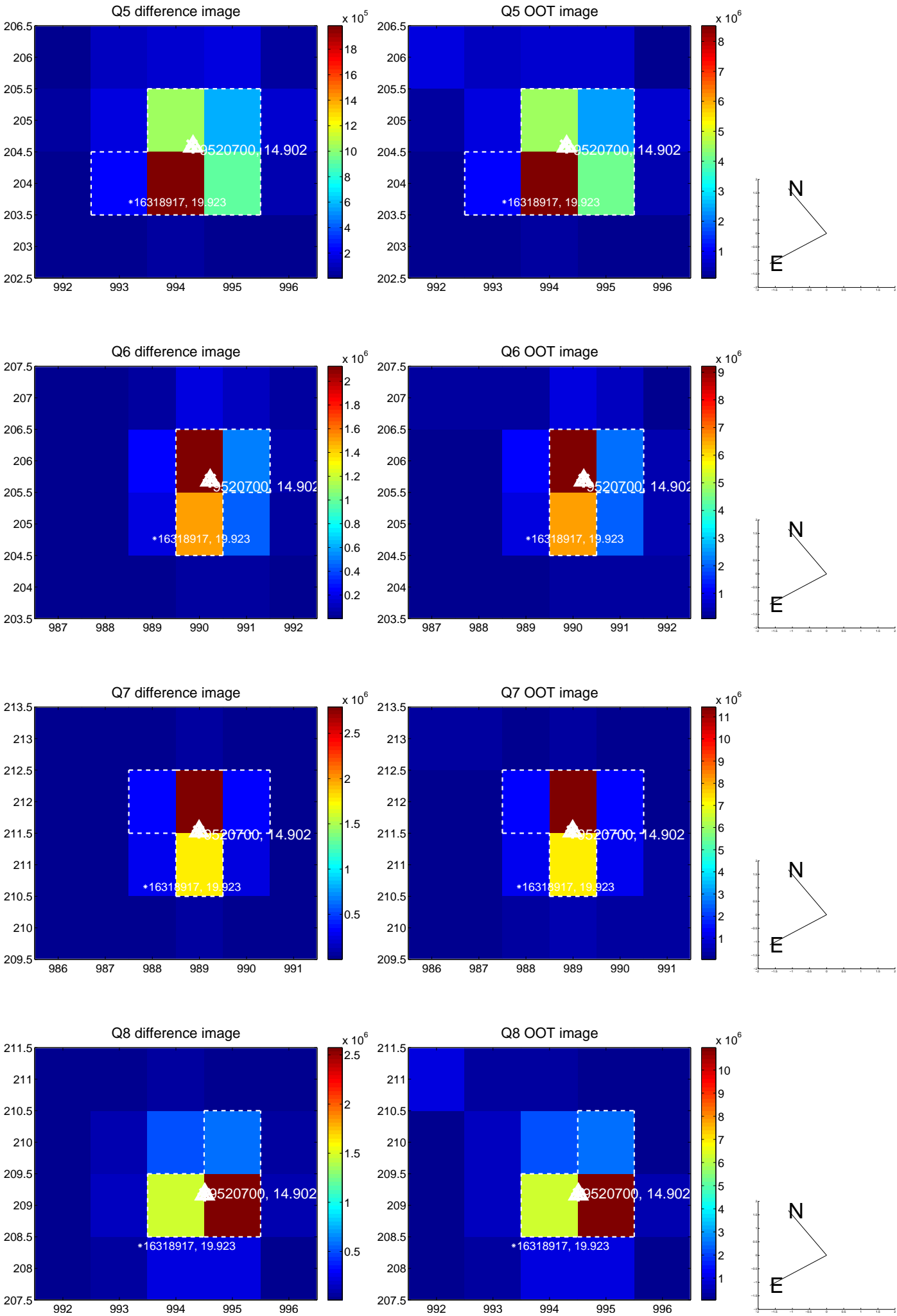


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

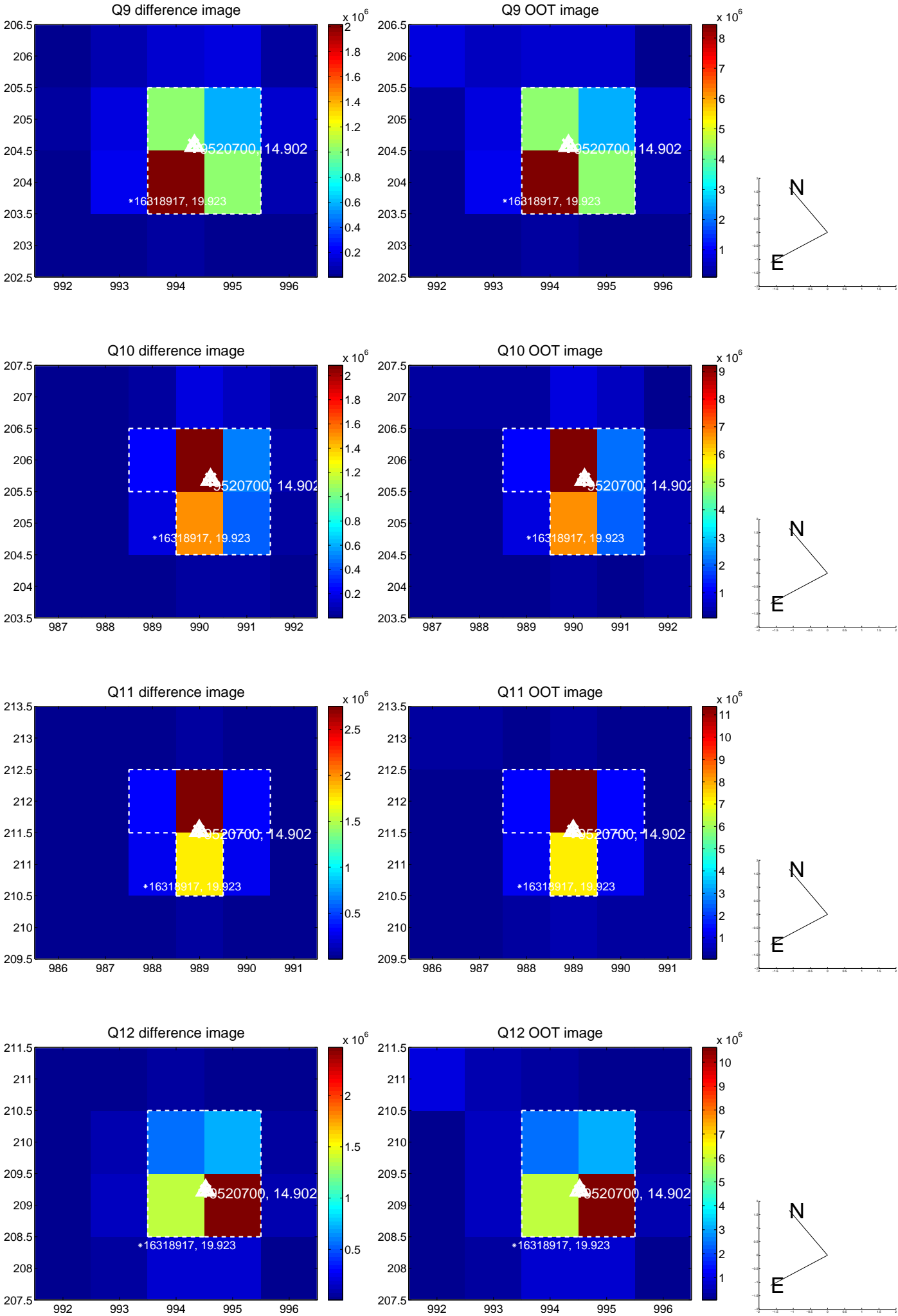
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



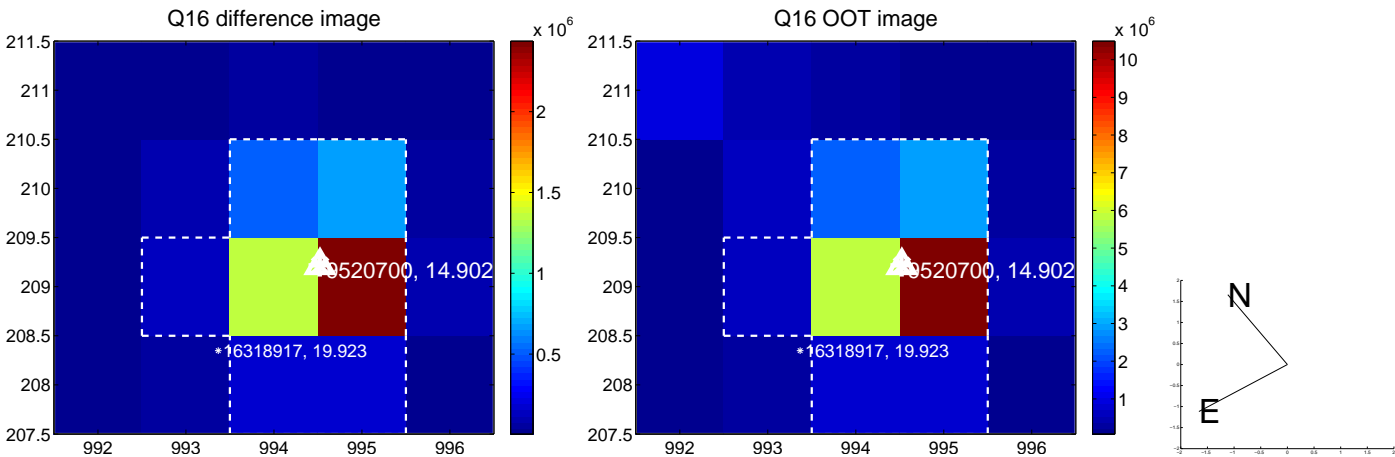
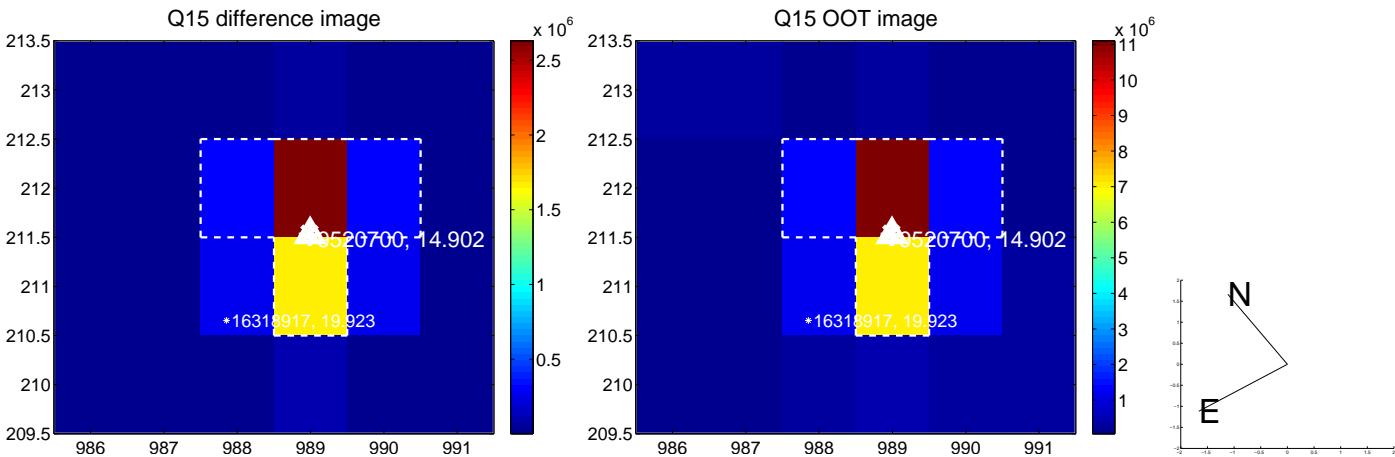
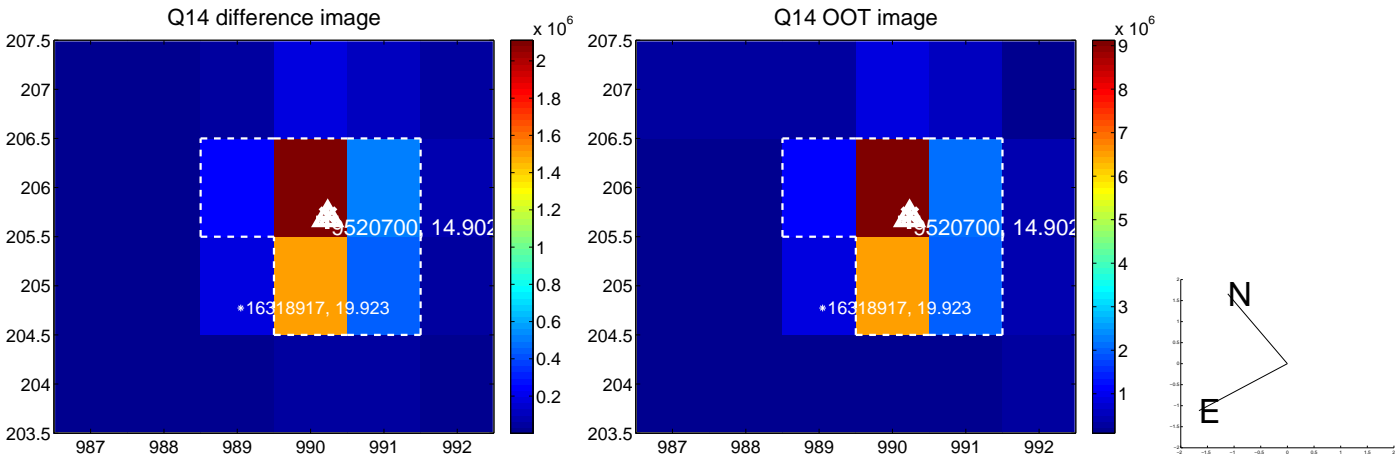
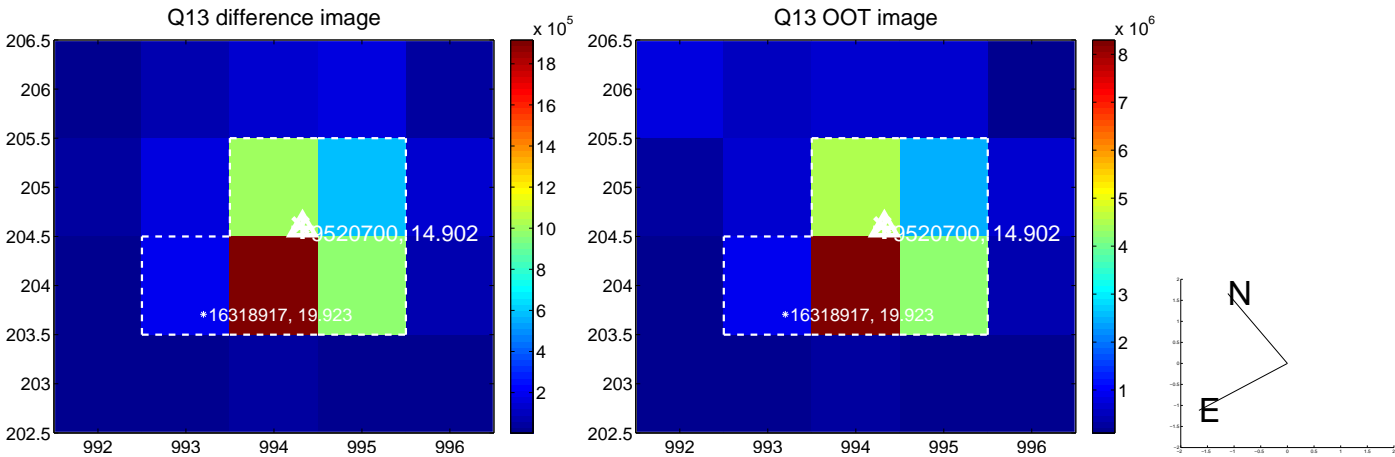
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



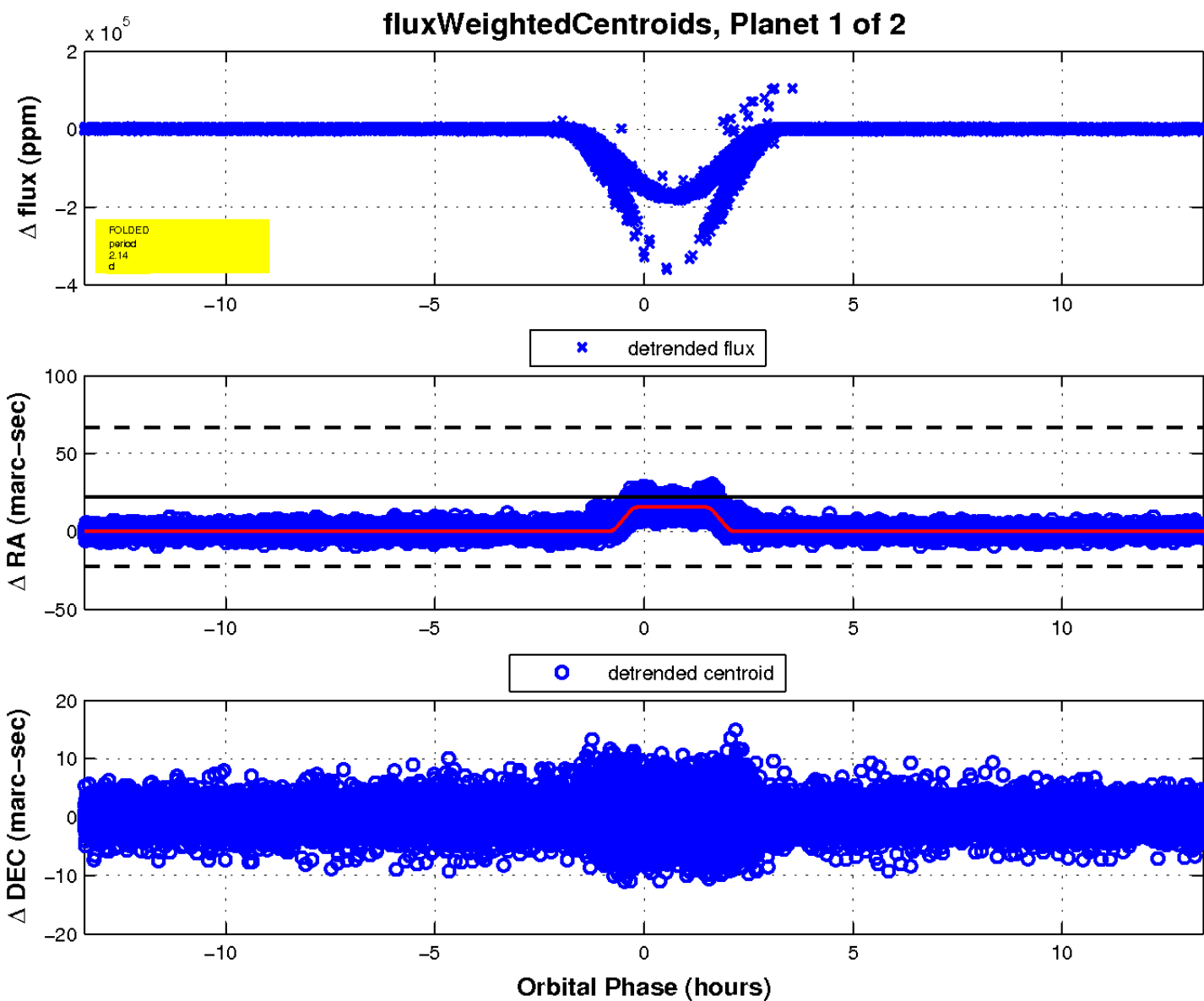
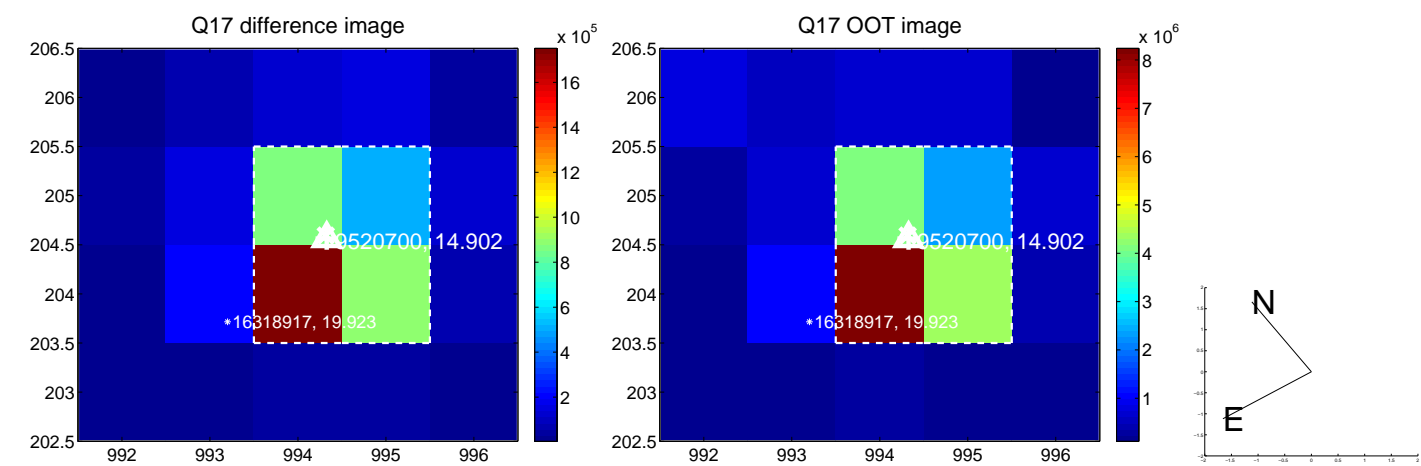
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

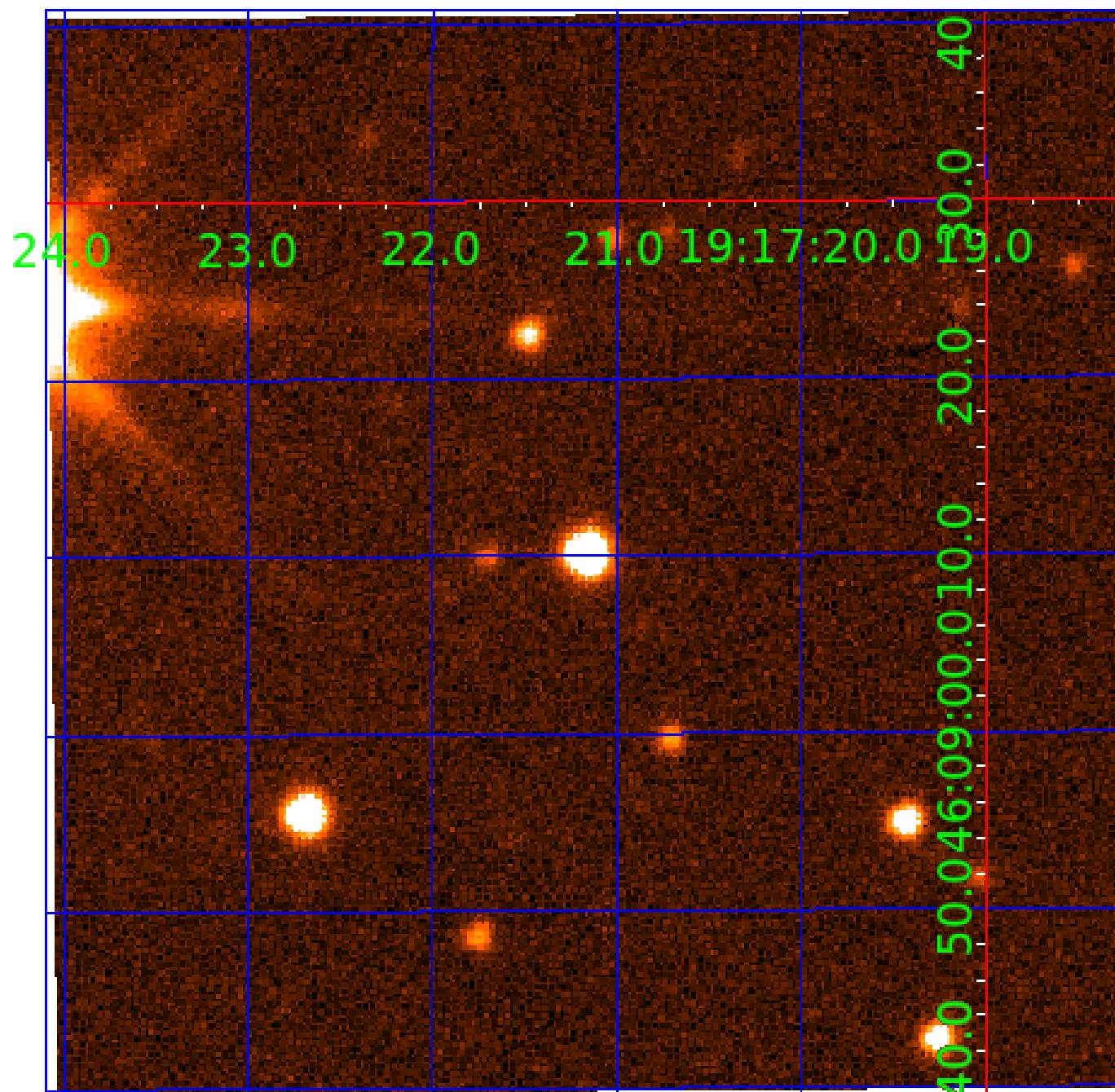


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009520700

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
009520700-01	OBS	7183.01	2.136857	133.533916	268894.1	7.500	7223.8	-1.0	0.99	5753	23.24	949.66
009520700-02	OBS	No	4.273755	134.054972	12560.3	12.000	879.8	-1.0	0.99	5753	10.98	376.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009520700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_NOFITS
009520700-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—SAME_NTL_PERIOD—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

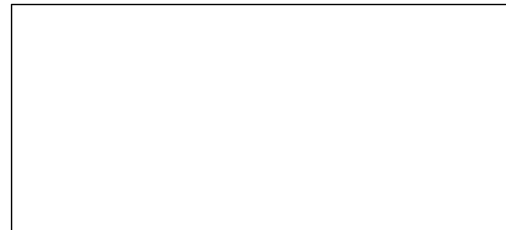
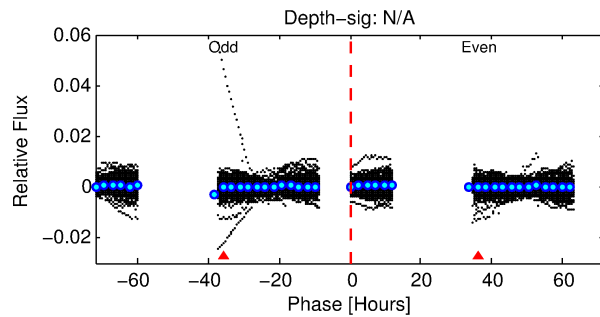
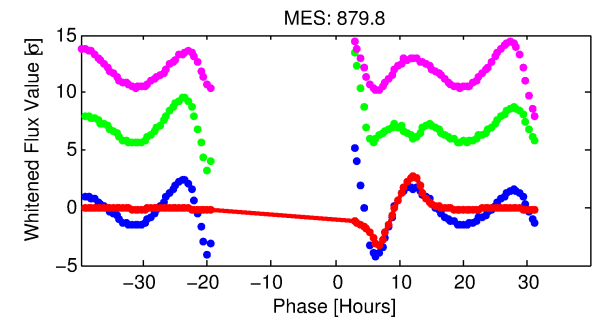
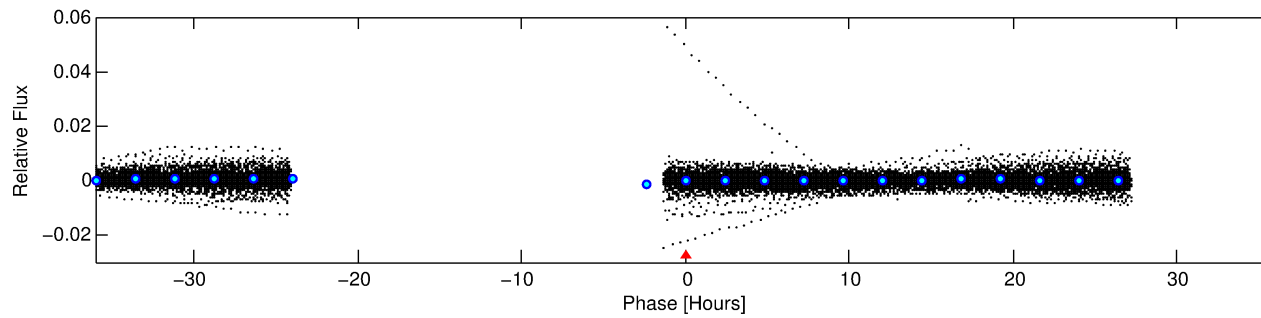
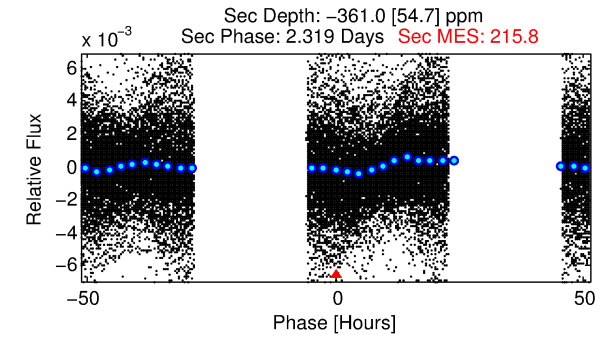
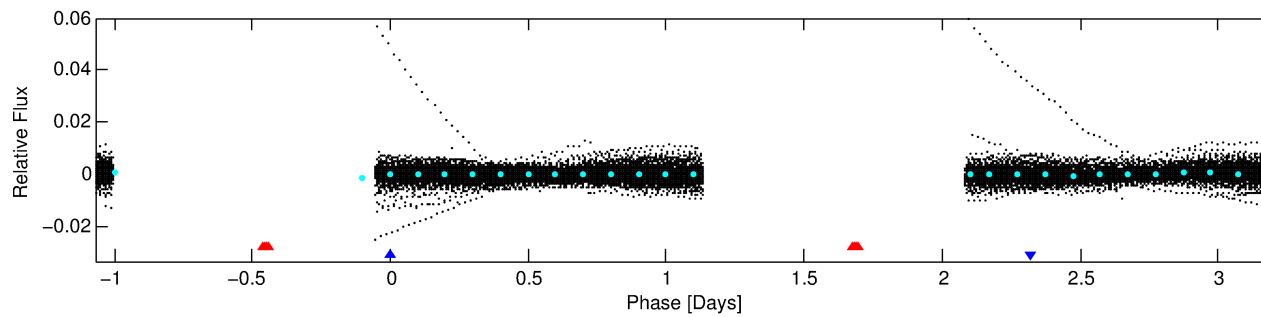
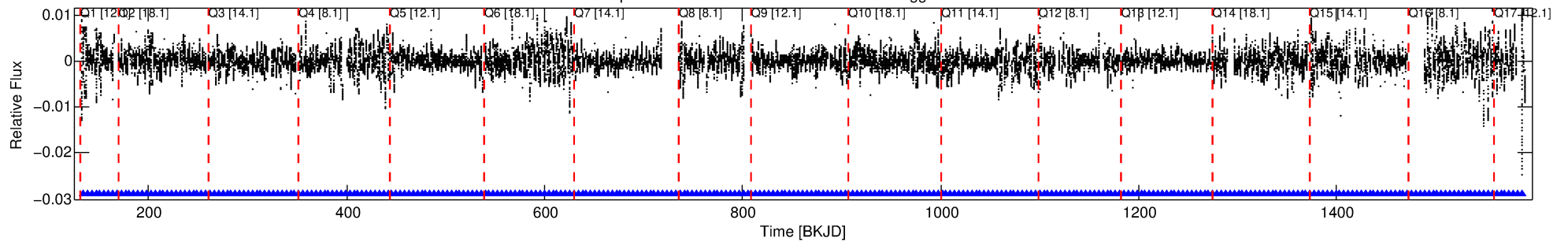
Ephemeris Match Information For 009520700-02

No Significant Match Found

DV One-Page Summary

KIC: 9520700 Candidate: 2 of 2 Period: 4.274 d
KOI: K07183 Corr: No Ephemeris Match

Kp: 14.90 R*: 0.99 Rs Teff: 5753.0 K Logg: 4.42 Fe/H: -0.060



TPS TCE Results:

Period = 4.27375 d
Epoch = 134.0550 BKJD

DV fit results are unavailable

DV Diagnostic Results:

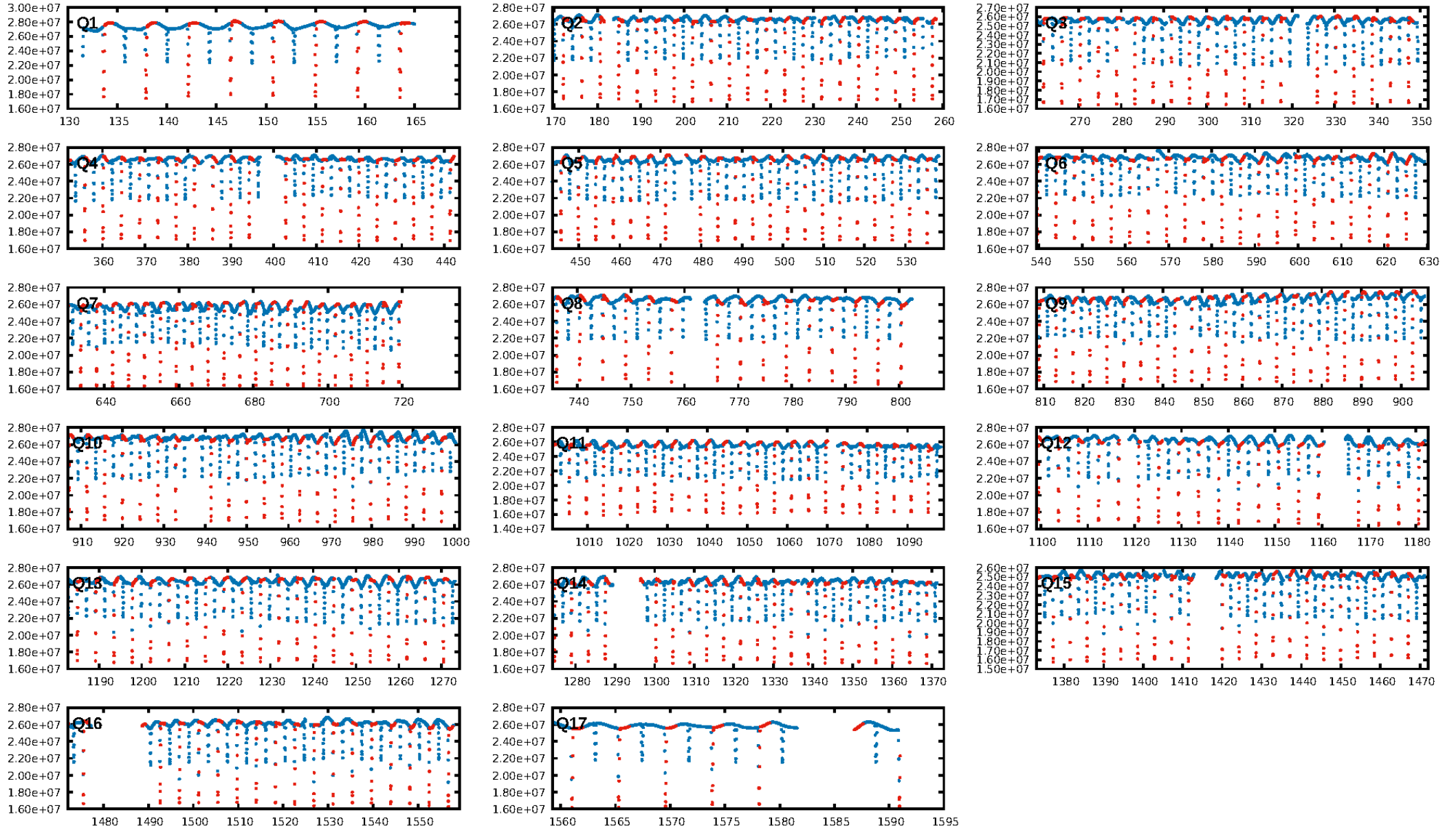
ShortPeriod-sig: 100.0% [3.62σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A

Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

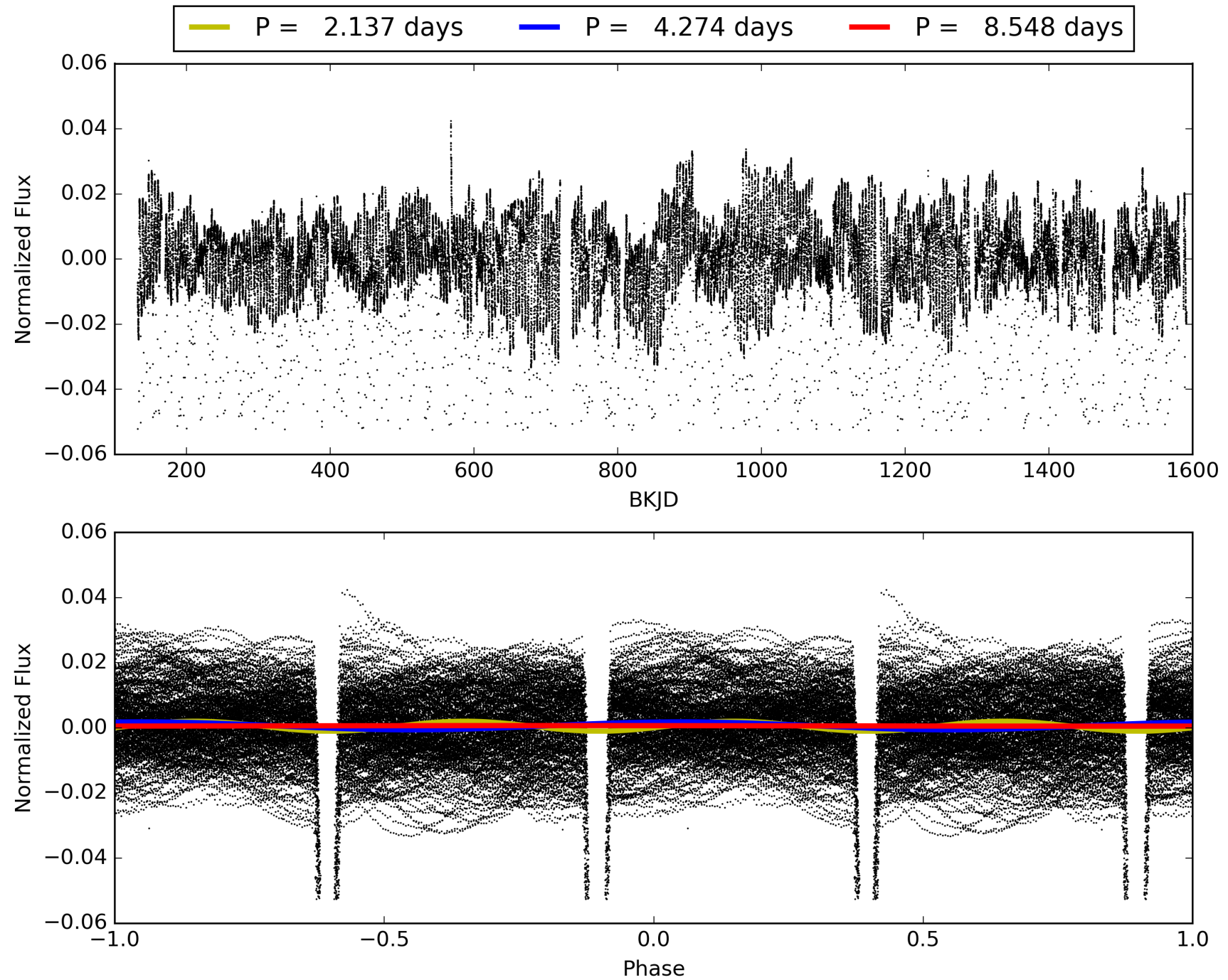
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:25:25 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009520700-02, PDC Light Curves

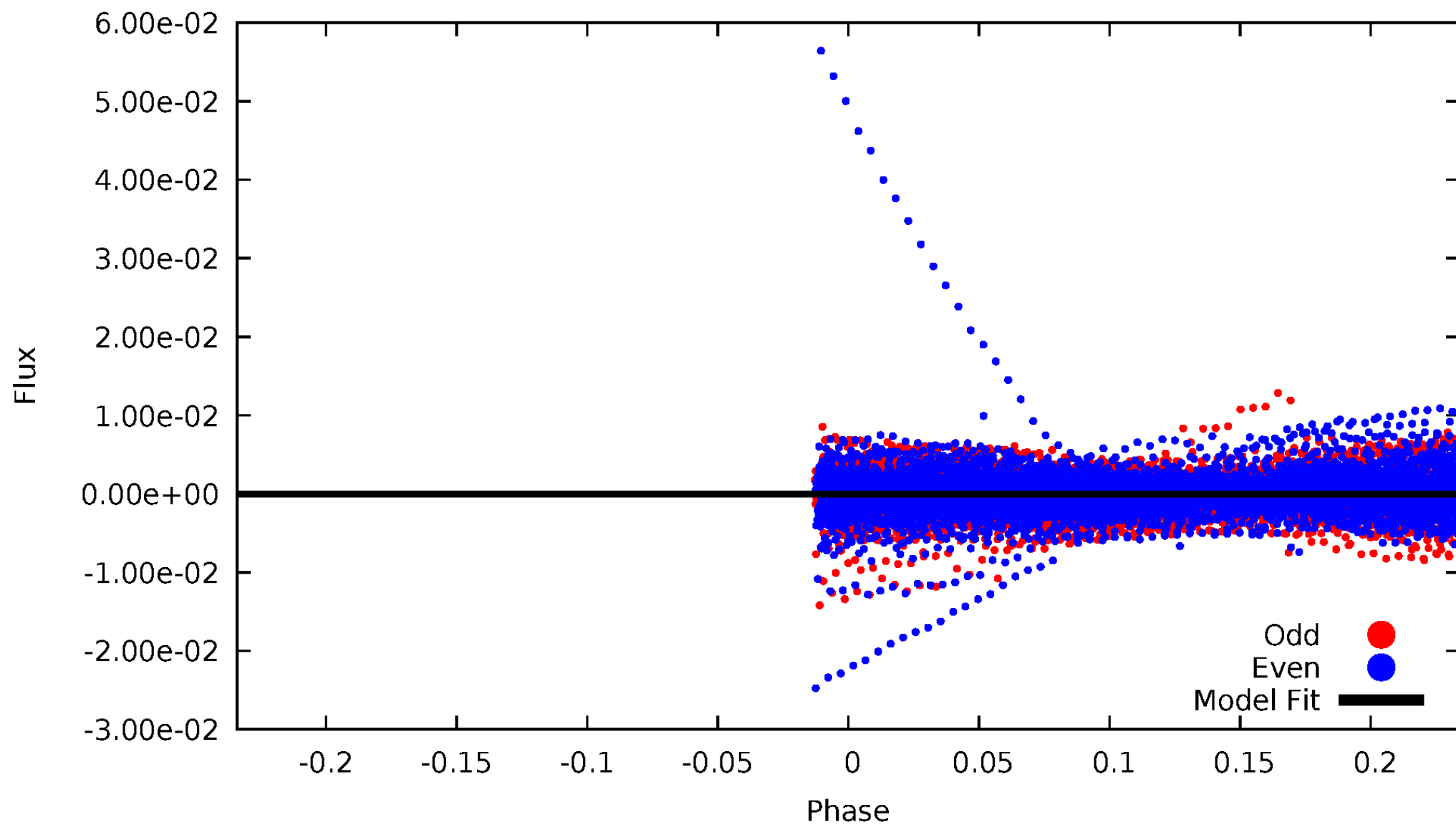


TCE 009520700-02



DV Odd/Even

TCE 009520700-02

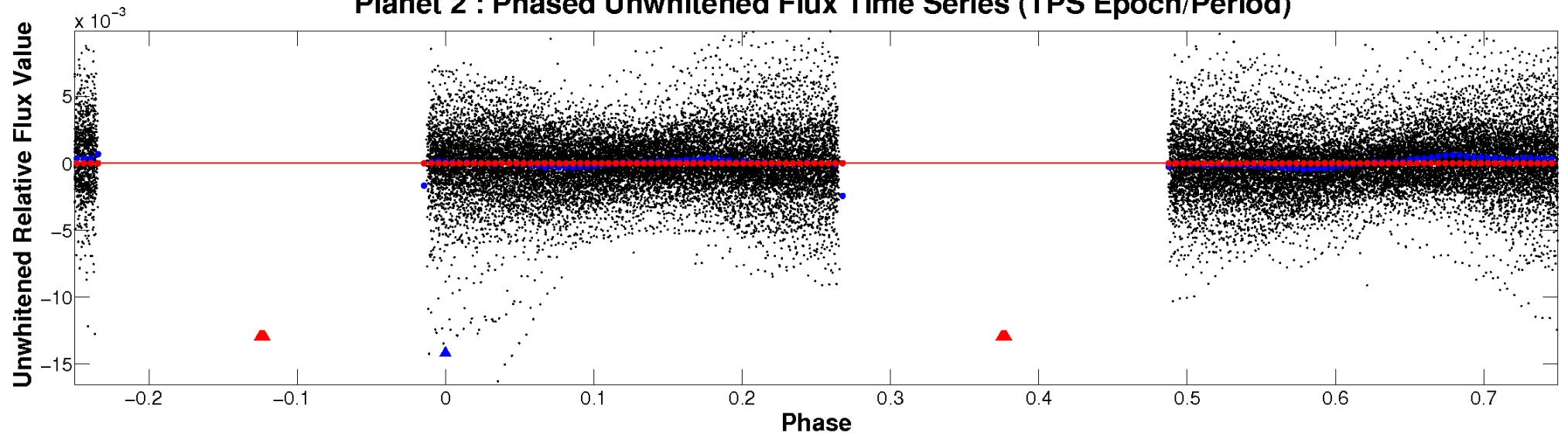


ALT Odd/Even

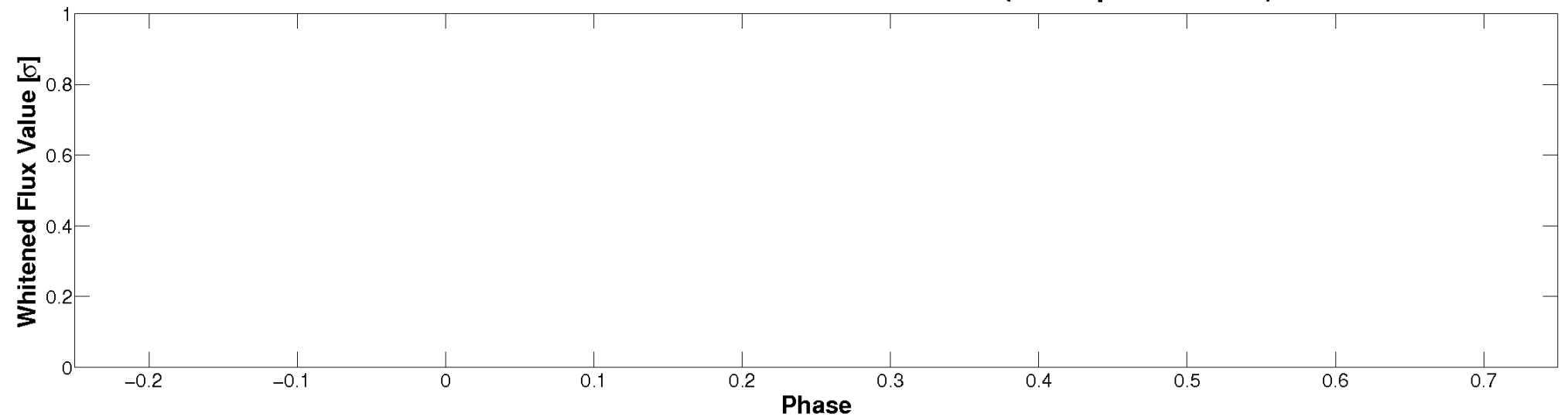
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

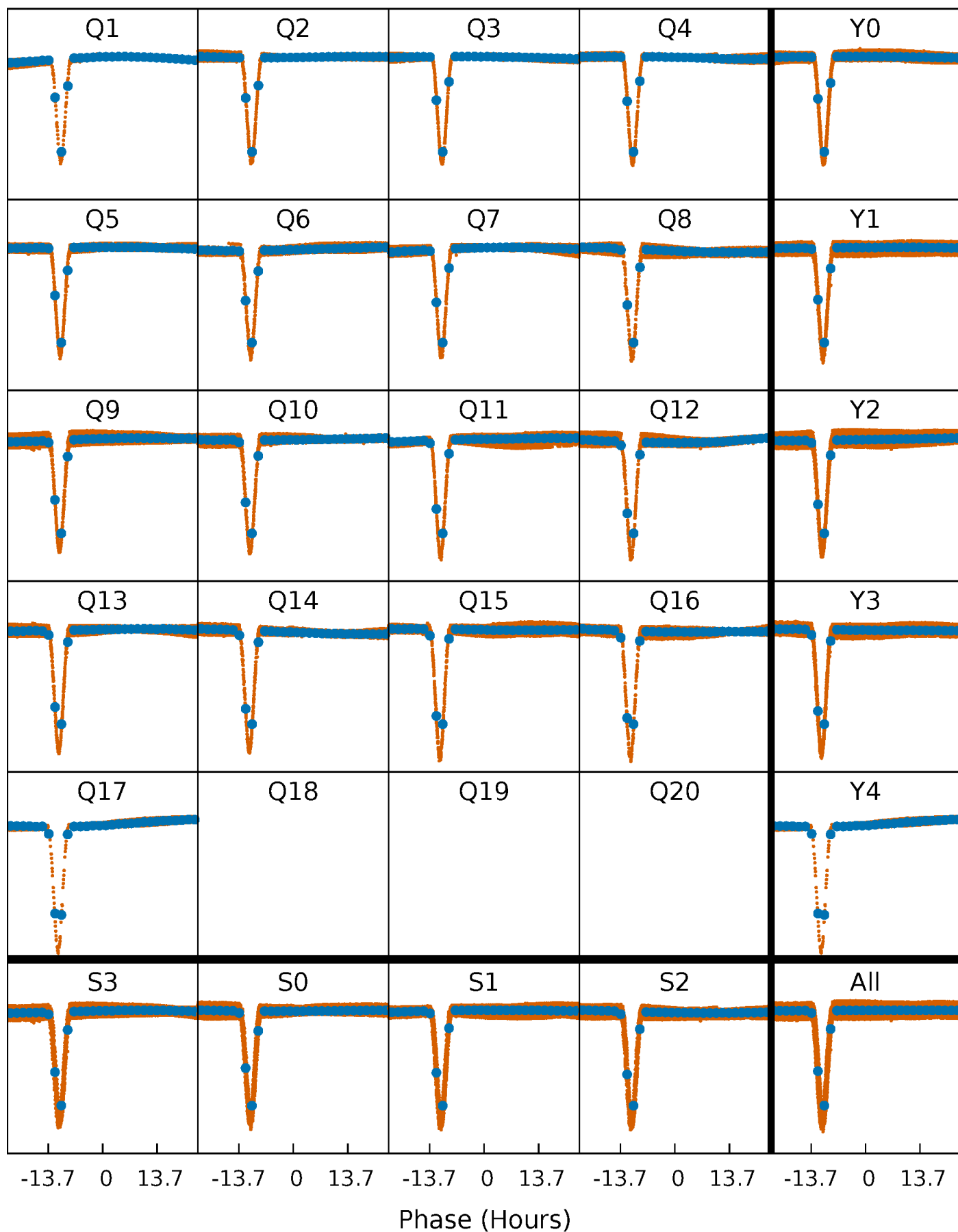


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



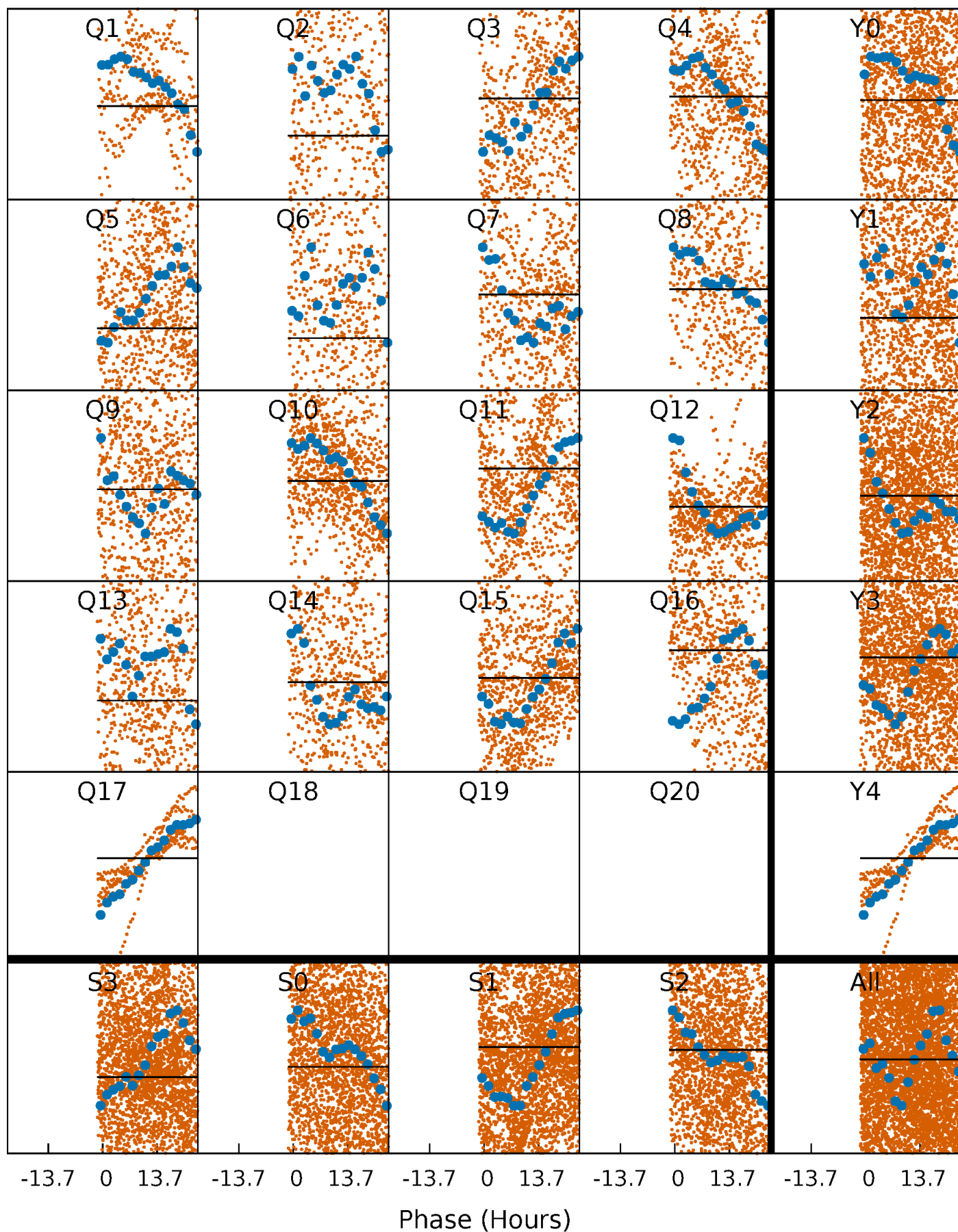
PDC Quarter-Phased Transit Curves

TCE 009520700-02 P= 4.273755 Days $T_0=134.054972$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 009520700-02 $P = 4.273755$ Days $T_0 = 134.054972$ (BKJD)

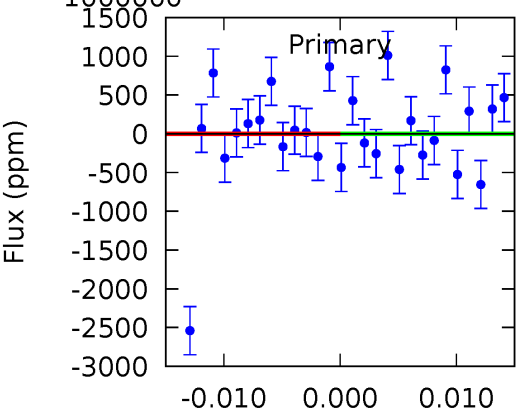
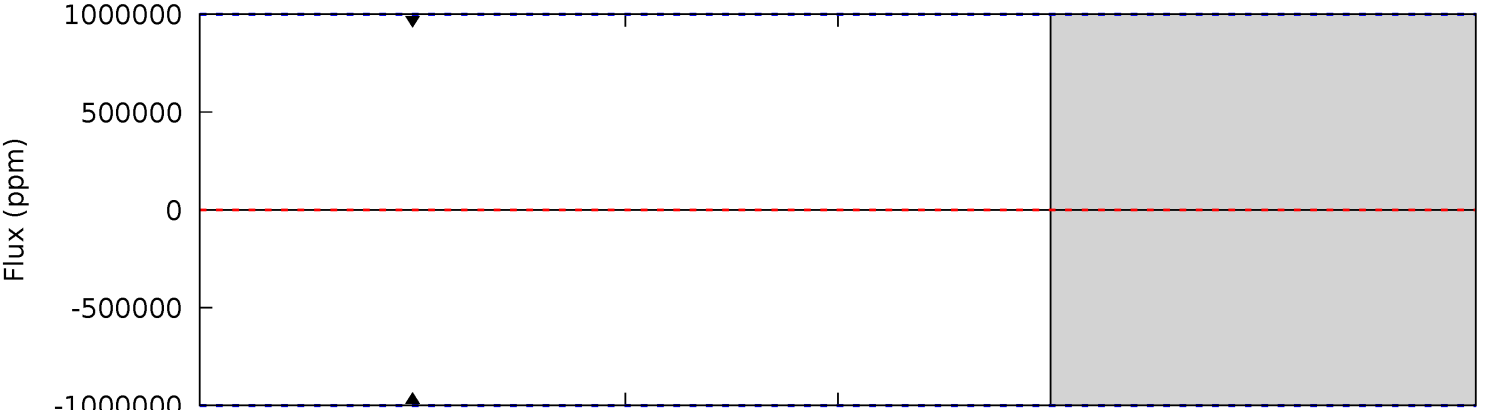
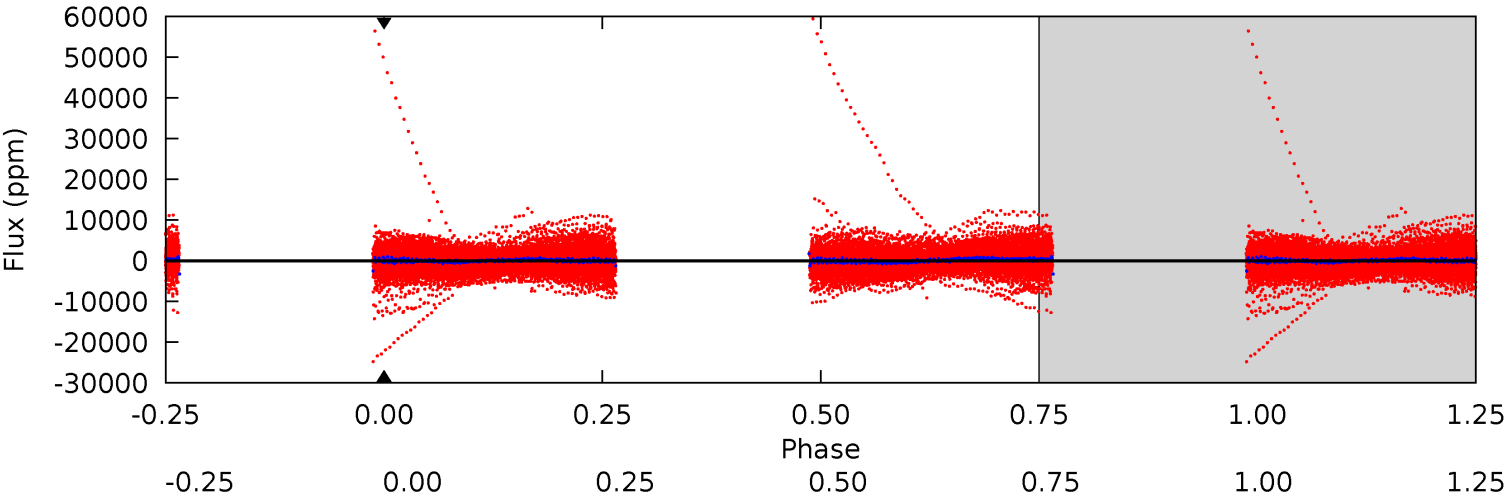


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

009520700-02, P = 4.273755 Days, E = 129.781217 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 009520700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5753^{+156}_{-156}	$4.420^{+0.101}_{-0.188}$	$-0.060^{+0.300}_{-0.300}$	$0.989^{+0.274}_{-0.147}$	$0.940^{+0.125}_{-0.091}$	$1.368^{+0.603}_{-0.668}$
	+3%/-3%	+2%/-4%	+500%/-500%	+28%/-15%	+13%/-10%	+44%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009520700-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$13.29^{+10.67}_{-8.55}$	1589^{+103}_{-84}	-4172^{+16016}_{-8973}	$-24.204^{+1130.015}_{-1356.317}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

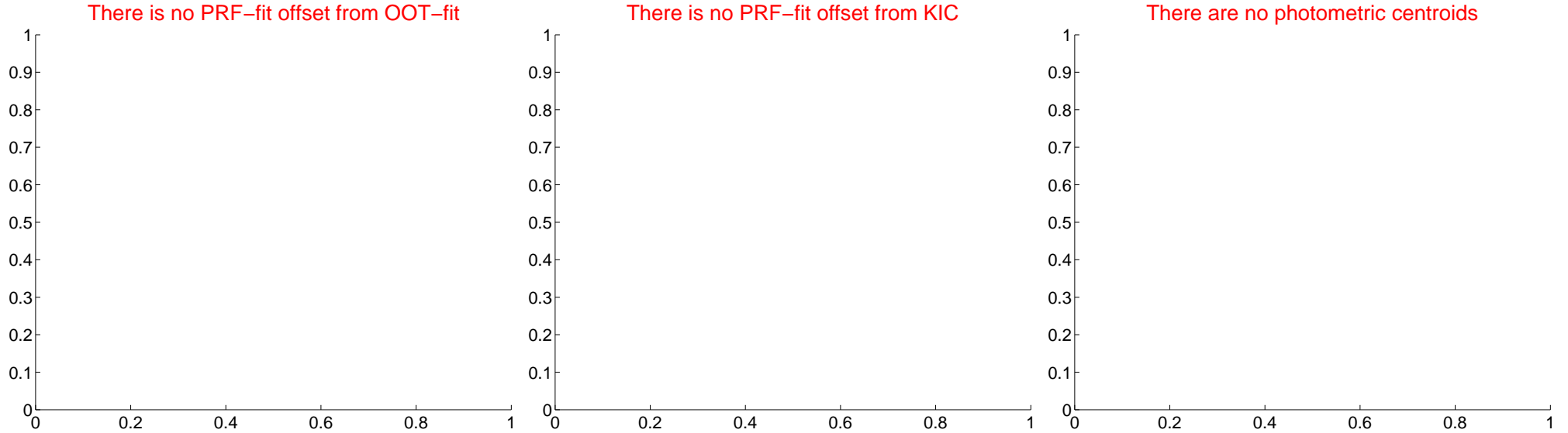
DV Centroid Data

Supplemental centroid analysis for 009520700-02. Kepler magnitude: 14.90. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

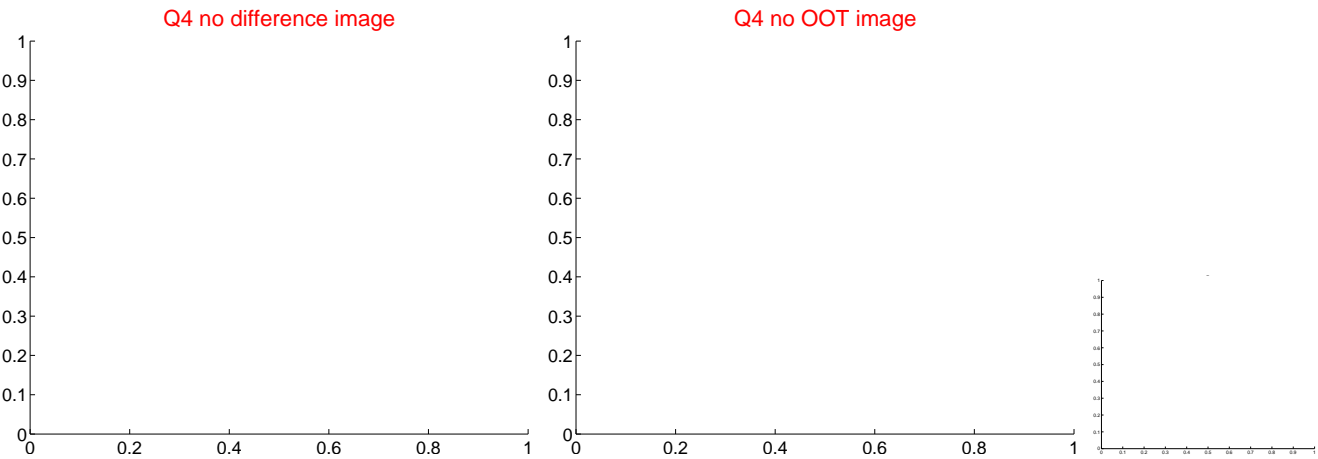
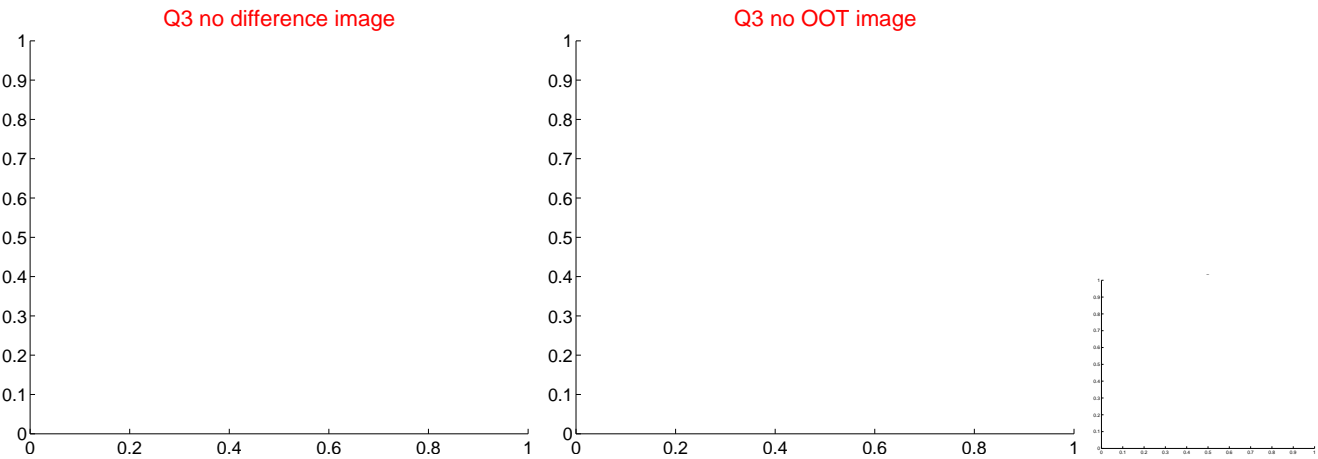
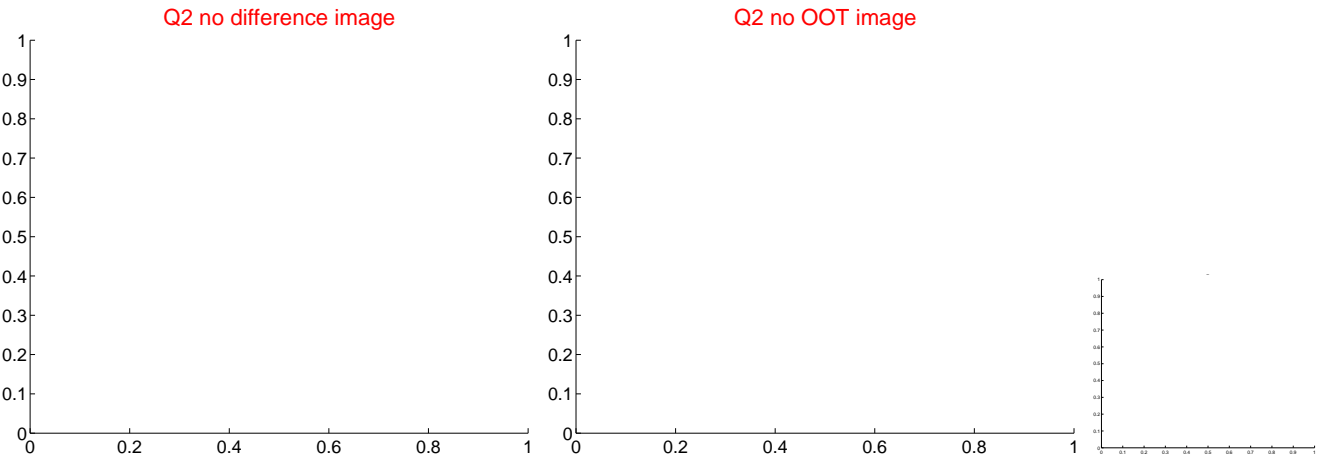
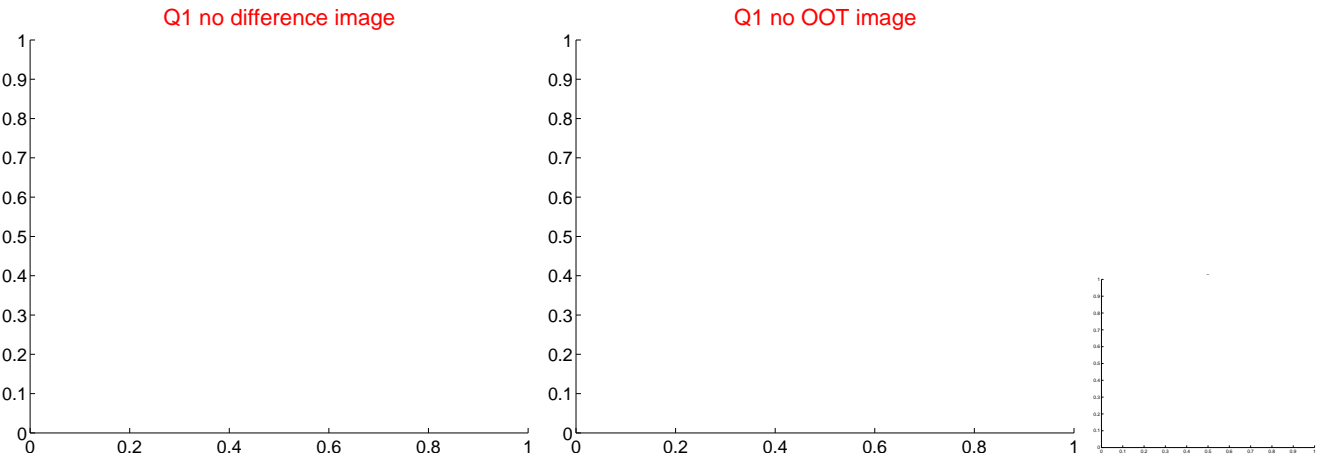
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



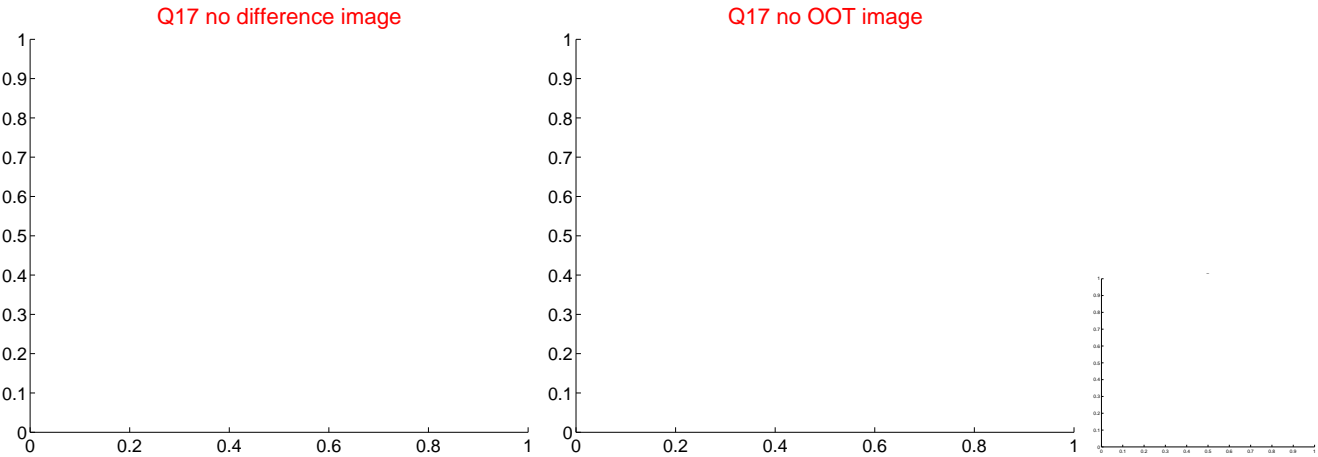
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

